# STATISTICS OF HAWAII AGRICULTURE 2001

A Partnership Between the



Hawaii
Department of Agriculture
Agricultural Development Division

United States
Department of Agriculture
National Agricultural Statistics Service



#### HAWAII AGRICULTURAL STATISTICS SERVICE

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The National Association of State Departments of Agriculture (NASDA) is a nonprofit, nonpolitical organization comprised of the 50 State Departments of Agriculture. NASDA and USDA-NASS have a cooperative agreement for NASDA to employ enumerators in the collection of agricultural statistics. Following is a list of Hawaii's NASDA enumerators by county.

#### **NASDA Enumerators By County**

Maui/Molokai Hawaii Honolulu/Kauai Earl Arakaki Leloy Banks Selma Aipa Charlotte Branco Larke Golaski Barbara Demler Lynn Larrua Soledad Francisco Kay Redden Shirley Fuke Lisa Hall Steven Haraguchi Charlene Rodrigues **Dwight Suzuki** 

Milton Yamasaki

We at the Hawaii Agricultural Statistics Service would like to take this time to thank each and everyone of these enumerators for their loyal dedication and hard work.

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## **HAWAII AGRICULTURE 2001**

#### **Diversified Agriculture Continues to Post Record Returns**

Farm level revenue for 2001 dipped 1 percent from the previous year to \$511 million, as the fourth consecutive year of drought, global price declines, and the aftereffects of the September 11 terrorist attack adversely affected farmer returns. Still, the diversified agriculture sector managed to hold its own, rising 1 percent to a record \$357 million, helping to cushion year-to-year declines for sugar and pineapple.

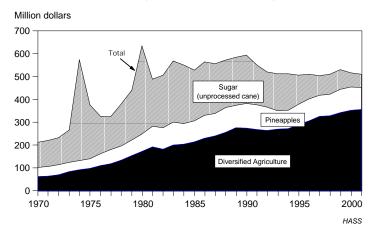
Allowing for the normal gains and losses among diversified commodities, the overall farm revenue for this segment managed a modest gain of 1 percent, and the ninth consecutive annual increase. Highlighting the gains were record years for flowers and nursery products, vegetables and melons, herbs, and seed crops. Macadamia nut revenue also posted a year-to-year gain. Although aquaculture value remained about even with the previous year, the drop in sales resulting from the aftermath of the September 11 terrorist attack prevented that industry from achieving its best year ever. Drought and lower prices took their toll on coffee and cattle output.

The equivalent farm value of pineapple (does not include value added by processing) declined to \$96.3 million. Rainfall remained below normal during most of 2001, resulting in smaller fruit size in some areas. However, favorable market conditions in 2001 allowed utilization of fresh fruit in the extreme ends of availability.

The equivalent farm value of sugarcane (does not include the processed value of raw sugar) slipped to \$57.8 million, 8 percent below the previous year. Less acreage harvested was the primary factor for the decline.

Farm level values shown in this publication are an important measure of production agriculture, but they don't truly reflect the total contribution of agriculture to the State and county economies. For a better understanding of the overall "Agriculture's picture, refer to Contribution to Hawaii's Economy-An Update" (CTAHR Economic Issues El-3b, Feb. 2002), a publication prepared jointly by the College of Tropical Agriculture and Human Resources, University of Hawaii at Manoa, and the Hawaii State Department of Agriculture.

## Cash Receipts of Agricultural Commodities, State of Hawaii, 1970-2001



### **Another Dry Year for Agriculture**

Except for scattered showers and tropical storm remnants, weather for 2001 was generally dry. As in the past year, crops such as coffee, macadamia nuts, avocados, and tropical fruits which depend on rainfall for irrigation, made only fair progress. Pastures also suffered from the prolonged lack of soil moisture. Although irrigated crops fared better, some farms were adversely affected by both mandatory and voluntary water conservation restrictions. Despite increased rainfall over the previous year, conditions were generally dry, especially in leeward and central districts.

#### January-April

A January cold front in the north brought generally fair weather. Conditions were characterized by light showers and mostly cool, dry weather. Light to moderate winds further dried the islands. Water conservation notices were issued to State irrigation users in Waimea, Hawaii. The winter drought continued into early February extending the conservation measures on the Big Island. Although an offshore thunderstorm and a string of pressure systems brought beneficial showers to the State later in the month, growing conditions were mostly fair, and more rain was needed in all areas. A low pressure system accompanied by a weak cold front returned to the islands in March, bringing clouds and scattered light to moderate showers. Lack of good follow-up showers disrupted the coffee flowering flush in Central Kona. Fruit set was low, and young cherries were dying. Fluctuating sunny and cloudy conditions enhanced disease infections on other crops. weather was favorable for agriculture during the first week, but returned to fair for the rest of the month. Trade winds were gusty up to 40 mph in exposed areas. Despite sunny days and beneficial showers, soil moisture

remained inadequate, especially on Hawaii and Maui. Coffee, avocado, and other rainfall dependent orchard crops continued to suffer dryness. Pastures were also dry, and showed little growth.

#### May-September

Variable weather in May brought beneficial showers and warm sunshine. However, heavy irrigation and water conservation restrictions remained necessary in dry areas. Regular spraying was needed to control insects and diseases. The favorable weather continued through June and July. Remnants of Tropical Storm Barbara brought moderate to heavy showers and relief to seriously dry areas. After the storm at the beginning of the month, July's weather turned sunny and dry with light showers falling in windward and some mountain areas. Leeward and central areas remained hot and dry; especially Maui, which did not receive significant rain for weeks. Rainfall dependent crops and pastures remained in poor condition. Remnants of Tropical Storm Dahlia brought temporary relief from dry conditions in early August. Light, scattered showers made heavy irrigation and spraying necessary to maintain crop progress. Crops and pastures were in fair to poor condition throughout the remainder of the month. September trades strengthened to moderate levels and brought hot, humid days with late afternoon and evening showers. Despite increased showers, heavy irrigation remained necessary. The variable weather continued into the end of the month when a weak low pressure trough brought brief windward and mountain showers.

#### October-December

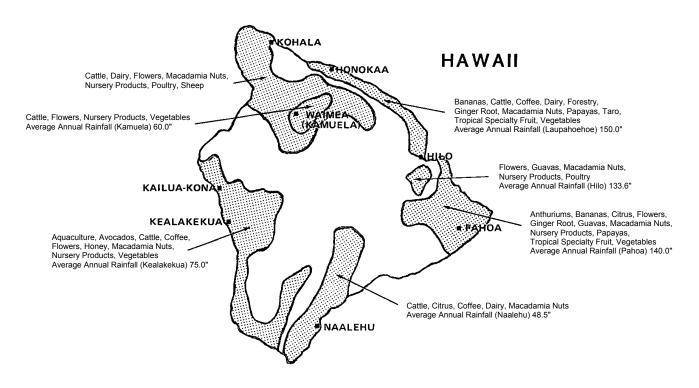
A strengthening northern high pressure system brought increased

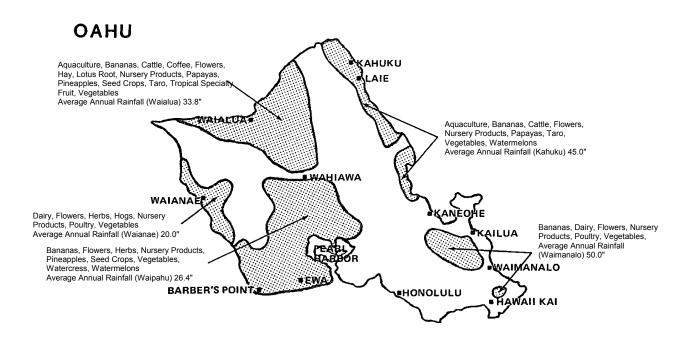
trade winds and some passing showers to windward and mountain areas. Despite stronger trade winds and passing showers, October remained generally dry. Tropical Storm Narda's remnants at the end of the month brought increased windward, mauka showers and stronger trade winds to portions of the State. A thunderstorm dumped heavy rains on East Hawaii at the month's end. Hilo received over 14 inches in nine hours, causing minor flooding in low-lying areas. A weak high pressure system and the remnants of Tropical Storm Octave brought more variable weather in November. Light to moderate trade showers fell mainly on Windward and mountain areas. Trade winds ranged from 15 to 30 mph. During the last two weeks, the weak northern high pressure system diminished showers and weakened winds to 5-15 mph. Spraying for insects and diseases was intensified. Although drier conditions benefitted some crops, orchards and pastures still needed more rainfall. December's Kona storm brought the vear's first major rain to the State. Up to 19 inches was reported in Ka'u, Hawaii during a 48 hour period. Gusty winds up to 60 mph were also reported. Some flooding occurred in low-lying areas, and orchards reported fruit losses as well as tree and leaf Wet conditions also damage. hindered farm activities. A second major storm at mid-month brought more heavy rains and gusty winds. Farm operations were further hindered and disease incidence increased drastically. However, the two major storms brought much needed rain to all islands and replenished soil moisture levels and severely depleted water supplies. The remainder of the year ended with generally conditions and weakening trade winds.

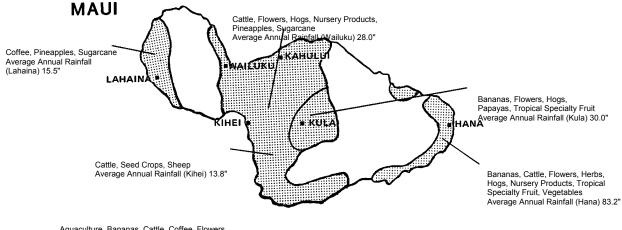
	WEAT	HER:	Pre	cipita	tion,	selec	ted s	tatior	ıs, St	ate o	f Haw	⁄aii, 2	001		
STATIONS	Year & normal	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual	% Annual normal
ISLAND OF HAWAII															
Hilo International Airport	Normal 2001	9.1 2.28	12.9 12.47	13.7 8.35	12.9 12.56	10.0 2.94	6.6 3.64	9.5 6.54	10.9 7.90	7.4 9.01	11.0 13.16	13.8 19.90	15.8 13.77	133.6 112.52	84.2
Kamuela (HI86)	Normal 2001	6.6 .89	6.0 5.76	7.9 2.68	6.9 2.13	4.0 1.93	2.2 1.46	3.7 2.76	4.1 5.70	2.2 2.74	3.3 5.55	5.8 5.53	7.3 3.67	60.0 40.80	68.0
Kealakekua (HI84)	Normal 2001	4.7 .39	3.4 1.55	5.6 2.17	6.2 3.04	7.7 3.73	8.2 5.72	8.7 6.67	8.3 5.79	8.2 6.02	6.2 6.58	4.4 6.19	3.4 2.35	75.0 50.20	66.9
Laupahoehoe (HI80)	Normal 2001	13.5 .96	13.2 12.94	19.5 5.33	18.9 13.78	11.7 3.25	6.2 3.49	10.0 5.28	12.4 5.45	6.9 5.25	9.3 15.18	13.6 15.34	14.8 18.57	150.0 104.82	69.9
Pahala (HI85)	Normal 2001	7.7 .22	6.1 12.98	6.3 .99	5.0 .75	3.8 1.23	2.2 1.18	2.1 .29	3.3 .39	3.4 1.30	4.2 3.98	5.5 19.77	5.4 2.84	55.0 45.92	83.5
Pahoa (HI83)	Normal 2001	13.9 3.15	10.9 14.85	14.7 8.18	13.9 13.81	10.5 3.97	7.1 3.58	9.8 7.98	10.6 8.19	9.2 6.24	11.5 14.39	13.3 17.71	14.6 12.14	140.0 114.19	81.6
ISLAND OF KAUAI															
Anahola (HI48)	Normal 2001	6.8 2.60	4.4 5.83	6.0 .51	4.6 	3.2 2.94	1.6 2.33	2.5 .93	2.5 1.29	2.0 .52	5.1 3.07	5.4 9.27	5.9 1.58	50.0 30.87	61.7
Hanalei (HI45)	Normal 2001	11.3 1.96	10.1 16.54	14.0 1.99	12.7 12.40	8.1 3.54	5.3 8.57	8.6 6.16	6.3 7.77	4.7 6.10	7.0 7.28	12.2 8.31	9.7 6.45	110.0 87.07	79.2
Omao (HI51)	Normal 2001	6.9 .80	4.5 3.88	5.5 2.74	5.2 3.41	4.2 1.61	3.4 5.39	4.7 3.46	4.6 4.55	3.7 2.25	4.7 3.94	5.9 4.95	6.7 3.94	60.0 40.92	68.2
ISLAND OF MAUI															
Hana (HI61)	Normal 2001	9.5 1.05	6.8 2.47	9.5 2.14	9.0 2.29	6.2 .93	3.8 2.45	5.6 3.96	5.6 3.58	5.4 4.34	7.0 5.68	8.7 3.96	6.1 3.02	83.2 35.87	43.1
Kula (HI65)	Normal 2001	4.9 .14	3.7 2.86	2.8 .57	2.8 .22	2.1 1.06	1.1 1.09	1.4 .17	1.9 .38	2.0 .47	1.4 .90	2.5 6.09	3.4 2.76	30.0 16.71	55.7
Wailuku (HI66)	Normal 2001	5.2 .03	3.8 1.24	3.6 .89	3.0 .33	1.2 1.42	.4 .41	.6 .31	.7 .99	.6 .26	1.7 2.08	2.9 	4.3 	28.0 7.96	28.4
ISLAND OF OAHU															
Kahuku (HI09)	Normal 2001	6.3 1.18	4.2 5.33	5.3 2.59	4.0 1.66	2.5 1.04	1.8 4.94	2.2 1.85	2.6 2.25	2.2 .46	4.0 3.37	4.6 5.20	5.3 2.78	45.0 32.65	72.6
Waialua (HI04)	Normal 2001	5.6 .64	3.9 .78	3.8 1.25	2.8 .54	1.7 .09	.9 1.06	1.3 .30	.8 .46	1.1 .27	2.7 1.29	4.2 4.42	5.0 2.11	33.8 13.21	39.1
Waianae (HI17)	Normal 2001	3.8 .39	2.3 .71	2.5 2.08	1.6 .55	.7 .11	.3 0	.3 0	.7 .18	.7 .08	1.8 .44	2.0 3.33	3.3 .68	20.0 8.55	42.8
Waimanalo (HI13)	Normal 2001	8.1 1.41	4.9 3.75	5.6 1.28	4.9 .84	3.1 .58	1.5 .85	1.7 .95	2.0	1.8 .70	4.3 1.53	4.9 5.74	7.2 3.19	50.0 20.82	41.6

<sup>-- =</sup> Missing data; incomplete.
Source: U. S. Department of Commerce, National Oceanic and Atmospheric Administration. Most rainfall stations were selected from the National Weather Service's hydronet system of automated gages, and those data have not been quality controlled to date, and therefore is not certified by the National Weather Service.

## MAJOR AGRICULTURAL AREAS, STATE OF HAWAII, 2001







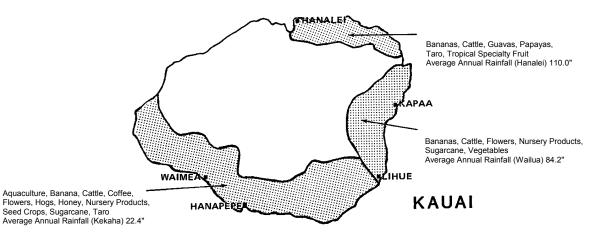
Aquaculture, Bananas, Cattle, Coffee, Flowers, Hay, Hogs, Nursery Products, Papayas, Seed Crops, Vegetables Average Annual Rainfall (Molokal Airport) 26.5"

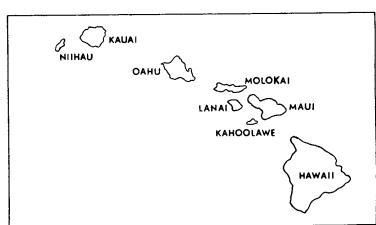






Average Annual Rainfall (Lanai Airport) 17.2"





### Top 20 commodities, State of Hawaii, 2000-2001

### Farm values, State of Hawaii, 1982-2001

Commodity <sup>1</sup>	Rank		Value of production		Year	Sugar (unprocessed	Pineapples (fresh	Diversified	Total
	2000	2001	2000	2001		cane)	equivalent)	agriculture 1	
	Nun	nber	1,000	dollars			1,000 dolla	ars	
Pineapples									
(fresh equivalent)	1	1	101,530	96,337	1982	230,800	94,364	182,104	507,268
Sugarcane					1983	266,900	100,376	201,138	568,414
(unprocessed)	2	2	62,600	57,800	1984	256,200	89,928	204,389	550,517
Seed crops	3	3	32,200	32,800	1985	222,400	90,530	215,719	528,649
Macadamia nuts	4	4	29,500	32,480	1986	233,800	99,720	231,197	564,717
Milk	5	5	28,102	26,546	1987	218,000	99,286	240,012	557,298
Coffee	6	6	23,055	19,600	1988	209,900	107,402	256,660	573,962
Cattle	7	7	19,204	18,007	1989	210,300	98,310	276,438	585,048
Papayas	8	8	16,007	14,598	1990	213,800	106,365	275,789	595,954
Bananas	10	9	10,440	10,640	1991	174,900	107,775	268,707	551,382
Algae	13	10	8,447	9,684	1992	153,700	102,100	264,427	520,227
Eggs	9	11	10,598	9,640	1993	163,000	79,850	271,094	513,944
Tomatoes	12	12	8,580	9,275	1994	160,100	78,890	273,826	512,816
Dracaena (potted)	16	13	6,648	8,443	1995	127,700	87,360	291,632	506,692
Palms (potted)	14	14	8,434	8,280	1996	108,100	95,914	307,329	511,343
Ginger root	11	15	8,910	8,100	1997	85,500	91,721	327,484	504,705
Anthuriums	15	16	7,357	6,904	1998	87,400	92,776	329,886	510,062
Dendrobium, pots	17	17	6,528	6,608	1999	86,800	101,448	342,846	531,094
Hogs	18	18	4,425	4,546	2000	62,600	101,530	352,870	517,000
Onions, dry	22	19	3,053	4,050	2001	57,800	96,337	356,935	511,072
Basil	19	20	3,600	3,520	1 Agua	culture included begi	nning 1993.		

NA = Not available.

### Diversified agriculture ranked by value, State of Hawaii, 2000-2001

Commodity	Ra	ank		Value of pro	Percent of diversified agriculture		
Commodity	2000	2001	2000	2001	Year-to-year percent change	2000	2001
	Nun	nber	1,000 dollars Pe		ercent		
Flowers and nursery products	1	1	82,684	87,976	+6	23.4	24.6
Vegetables and melons 1	2	2	59,159	62,043	+5	16.8	17.4
Seed crops	3	3	32,200	32,800	+2	9.1	9.2
Macadamia nuts	5	4	29,500	32,480	+10	8.4	9.1
Fruits (excluding pineapples)	4	5	31,364	30,190	-4	8.9	8.5
Milk	6	6	28,102	26,546	-6	8.0	7.4
Aquaculture	8	7	22,170	22,200	0	6.3	6.2
Coffee	7	8	23,055	19,600	-15	6.5	5.5
Cattle	9	9	19,204	18,007	-6	5.4	5.0
Eggs	10	10	10,598	9,640	-9	3.0	2.7
Hogs	11	11	4,425	4,546	+3	1.3	1.3
Other livestock and crops			10,409	10,907	+5	2.9	3.1
Total			352,870	356,935	+1	100.0	100.0

<sup>&</sup>lt;sup>1</sup> Includes ginger root and herbs.

<sup>&</sup>lt;sup>1</sup> Floriculture categories include only growers with total sales of \$10,000 or more.

<sup>&</sup>lt;sup>1</sup>Aquaculture included beginning 1993.

SUMMARY: Acreage in crop and total farm acreage, by counties, 1997-2001

		Adicag	о от ор ала с		- ugo,	y ocurrincs,		
Year	Sugarcane	Pineapples <sup>1</sup>	Vegetables and melons <sup>2 3</sup>	Fruits (excluding pineapples)	Coffee	Macadamia nuts	All other crops <sup>4</sup>	Total farm acreage ⁵
				1,000 acres				
01-1-6								
State 6	7.07.0	40.0	0.5		<del>-</del> -	00.0	40.0	4.440
1997	<sup>7</sup> 67.8	19.9	6.5	8.0	7.0	20.2	13.3	1,440
1998	67.6	21.0	6.6	7.6	7.4	20.2	15.9	1,440
1999	67.0	21.0	8.2	8.0	7.7	19.9	<sup>7</sup> 14.9	1,440
2000	60.0	20.7	6.4	7.1	7.9	18.4	7.3	1,440
2001	46.0	20.1	6.6	7.1	8.0	18.0	8.9	1,440
Countie	s:							
Hawai	i							
1997	0	*	2.1	5.6	2.5	8	1.7	870
1998	0	*	2.1	4.8	2.8	8	2.0	870
1999	0	*	2.3	4.9	3.2	8	<sup>7</sup> 1.9	870
2000	0	*	1.8	4.1	3.3	8	1.7	870
2001	0	*	1.9	4.5	3.4	8	2.1	870
Honoli	ulu							
1997	0	10.8	2.9	1.3	8	8	8.3	80
1998	0	11.4	2.8	1.6	8	8	11.0	80
1999	0	11.9	4.3	1.8	8	8	<sup>7</sup> 10.4	80
2000	0	9.1	3.1	1.7	8	8	2.6	80
2001	0	11.0	3.4	1.5	8	8	3.4	80
Kauai								
1997	<sup>7</sup> 25.4	*	.1	.8	8	8	1.6	200
1998	24.7	*	.1	.9	8	8	1.0	200
1999	23.7	*	.2	1.0	8	8	1.1	200
2000	23.1	*	.2	1.0	8	8	1.3	200
2001	10.6	*	.1	.8	8	8	1.3	200
Maui								
1997	<sup>7</sup> 42.4	9.1	1.4	.3	8	8	1.7	290
1998	42.9	9.6	1.6	.3	8	8	1.9	290
1999	43.3	9.1	1.4	.3	8	8	<sup>7</sup> 1.5	290
2000	36.9	11.6	1.3	.3	8	8	1.7	290
2001	35.4	9.1	1.2	.3	8	8	2.1	290
	- th 50							

<sup>\* =</sup> Less than 50 acres.

<sup>&</sup>lt;sup>1</sup> Land used for pineapple.

<sup>&</sup>lt;sup>2</sup> Harvested acreage.

<sup>&</sup>lt;sup>3</sup> Includes ginger root.

<sup>&</sup>lt;sup>4</sup> Includes taro, seed corn, feed and forage crops (excluding pineapple feed products), flowers, foliage and nursery products.

 $<sup>^{\</sup>rm 5}$  Includes land not in crop and pasture such as farm house lots, roads, woodlots, etc.

<sup>&</sup>lt;sup>6</sup> Sum of county estimates may not add to State total due to rounding.

<sup>7</sup> Revised

<sup>&</sup>lt;sup>8</sup> Data not shown separately to avoid disclosure of individual operations but combined and included in the State total.

SUMMARY: Number of crop farms, by counties, 1997-2001

Year   Sugarcane   Pineapples   Vegetables and melons   Fruits (excluding pineapples)   Coffee   Macadamia nuls   Taro   Flowers and mursery products		SUMMART: Number of crop farms, by counties, 1997-2001												
1997	Year	Sugarcane	Pineapples <sup>1</sup>		(excluding	Coffee		Taro	and nursery					
1997														
1997	State													
1998		1	15	1 000	1 0/13	585	800	160	670					
1999														
2000 3 15 580 1,254 670 650 185 735 2001 2 15 575 1,059 700 650 170 790  Counties:  Hawaii  1997 0 6 440 704 575 2 85 312 1998 0 5 432 912 600 2 100 355 2000 0 5 250 705 650 2 85 335 2001 0 6 270 585 675 2 60 360  Honolulu  1997 0 2 400 129 2 2 11 205 1998 0 2 2 280 186 2 2 11 205 2000 0 2 160 142 2 2 15 205 2001 0 2 160 142 2 2 15 50 2001 0 2 160 162 2 2 55 2001 0 2 160 162 2 2 55 40 1998 2 3 55 143 2 2 15 106 1999 2 3 3 55 143 2 2 2 70 50 2001 1 5 45 139 2 70 60  Maui  Maui  1997 2 4 105 86 2 2 2 70 60  Maui  1997 2 4 105 86 2 2 2 70 60  Maui  1997 2 4 105 86 2 2 2 70 60  Maui  1997 2 4 105 86 2 2 70 60  Maui  1997 2 4 105 86 2 2 70 60  Maui  1997 2 4 105 86 2 2 70 70 60														
Counties:         Hawaii           1997         0         6         440         704         575         2         85         312           1998         0         5         432         912         600         2         100         355           1999         0         5         600         805         635         2         100         355           2000         0         5         250         705         650         2         85         335           2001         0         6         270         585         675         2         60         360           Honolulu           1997         0         2         400         129         2         2         11         202           1998         0         2         280         186         2         2         11         205           1999         0         2         230         174         2         2         15         225           2000         0         2         160         162         2         2         15         205           2001         0         2         160														
Counties: Hawaii  1997														
Hawaii	2001	2	13	373	1,033	700	030	170	130					
Hawaii	0													
1997   0		:												
1997   0		^	•	440	704		2	0.5	040					
1999   0			6											
1995			5											
2001         0         6         270         585         675         2         60         360           Honolulu           1997         0         2         400         129         2         2         10         202           1998         0         2         280         186         2         2         11         205           1999         0         2         230         174         2         2         12         225           2000         0         2         160         162         2         2         15         205           2001         0         2         160         142         2         2         15         205           2001         0         2         160         142         2         2         55         40           1997         2         3         55         124         2         2         55         40           1998         2         3         45         143         2         2         2         55         40           1999         2         3         50         156         2         2         70			5											
Honolulu  1997														
1997	2001	0	6	270	585	675	2	60	360					
1997														
1997   0						2	2							
Kauai       1997     2     3     55     124     2     2     50     50       1998     2     3     54     155     2     2     55     40       1999     2     3     45     143     2     2     65     35       2000     2     3     50     156     2     2     70     50       2001     1     5     45     139     2     2     70     60       Maui       1997     2     4     105     86     2     2     15     106       1998     2     5     114     262     2     2     14     145       1999     2     5     145     251     2     2     13     150       2000     1     5     120     231     2     2     15     145			2											
Kauai       1997     2     3     55     124     2     2     50     50       1998     2     3     54     155     2     2     55     40       1999     2     3     45     143     2     2     65     35       2000     2     3     50     156     2     2     70     50       2001     1     5     45     139     2     2     70     60       Maui       1997     2     4     105     86     2     2     15     106       1998     2     5     114     262     2     2     14     145       1999     2     5     145     251     2     2     13     150       2000     1     5     120     231     2     2     15     145			2											
Kauai       1997     2     3     55     124     2     2     50     50       1998     2     3     54     155     2     2     55     40       1999     2     3     45     143     2     2     65     35       2000     2     3     50     156     2     2     70     50       2001     1     5     45     139     2     2     70     60       Maui       1997     2     4     105     86     2     2     15     106       1998     2     5     114     262     2     2     14     145       1999     2     5     145     251     2     2     13     150       2000     1     5     120     231     2     2     15     145			2											
Kauai       1997     2     3     55     124     2     2     50     50       1998     2     3     54     155     2     2     55     40       1999     2     3     45     143     2     2     65     35       2000     2     3     50     156     2     2     70     50       2001     1     5     45     139     2     2     70     60       Maui       1997     2     4     105     86     2     2     15     106       1998     2     5     114     262     2     2     14     145       1999     2     5     145     251     2     2     13     150       2000     1     5     120     231     2     2     15     145			2											
1997     2     3     55     124     2     2     50     50       1998     2     3     54     155     2     2     55     40       1999     2     3     45     143     2     2     65     35       2000     2     3     50     156     2     2     70     50       2001     1     5     45     139     2     2     70     60       Maui       1997     2     4     105     86     2     2     2     15     106       1998     2     5     114     262     2     2     14     145       1999     2     5     145     251     2     2     13     150       2000     1     5     120     231     2     2     15     145	2001	0	2	160	142	2	2	15	220					
1997     2     3     55     124     2     2     50     50       1998     2     3     54     155     2     2     55     40       1999     2     3     45     143     2     2     65     35       2000     2     3     50     156     2     2     70     50       2001     1     5     45     139     2     2     70     60       Maui       1997     2     4     105     86     2     2     2     15     106       1998     2     5     114     262     2     2     14     145       1999     2     5     145     251     2     2     13     150       2000     1     5     120     231     2     2     15     145	17													
1997		_	_			2	2							
1996		2												
Maui       1997     2     4     105     86     2     2     15     106       1998     2     5     114     262     2     2     14     145       1999     2     5     145     251     2     2     13     150       2000     1     5     120     231     2     2     2     15     145		2	3											
Maui       1997     2     4     105     86     2     2     15     106       1998     2     5     114     262     2     2     14     145       1999     2     5     145     251     2     2     13     150       2000     1     5     120     231     2     2     2     15     145		2	3											
Maui     1997     2     4     105     86     2     2     15     106       1998     2     5     114     262     2     2     14     145       1999     2     5     145     251     2     2     13     150       2000     1     5     120     231     2     2     2     15     145			3											
1997     2     4     105     86     2     2     15     106       1998     2     5     114     262     2     2     14     145       1999     2     5     145     251     2     2     13     150       2000     1     5     120     231     2     2     15     145	2001	1	5	45	139	2	2	70	60					
1997     2     4     105     86     2     2     15     106       1998     2     5     114     262     2     2     14     145       1999     2     5     145     251     2     2     13     150       2000     1     5     120     231     2     2     15     145	Moui													
1997     2     4     105     86     15     106       1998     2     5     114     262     2     2     14     145       1999     2     5     145     251     2     2     13     150       2000     1     5     120     231     2     2     15     145		_		4.0-		2	2		400					
1998     2     5     114     262     14     145       1999     2     5     145     251     2     2     13     150       2000     1     5     120     231     2     2     15     145														
2000 1 5 120 231 <sup>2</sup> <sup>2</sup> 15 145														
2000 1 5 120 231 15 145														
2001 1 2 100 193 <del> 25</del> 150														
¹ Includes specialty nineapple		-		100	193	-		25	150					

<sup>&</sup>lt;sup>1</sup> Includes specialty pineapple. <sup>2</sup> Data not shown separately to avoid disclosure of individual operations but combined and included in the State total.

SUMMARY: Number of livestock operations and total number of farms, by counties, 1997-2001

Year	Cattle 1	Hogs	Milk	Eggs	Honey	Total (non-duplicated) <sup>2</sup>
State						
1997	830	250	<b>E</b> 0	EE	23	5,500
			50 50	55 55		
1998	830	250	50 50	55 55	29	5,500 5,500
1999	800	230	50 50	55 55	28	5,500
2000	800	230	50 50	55 55	33	5,500
2001	800	230	50	55	30	5,300
Counties:						
Hawaii						
1997	480	90	27	25	14	3,300
1998	480	80	27	26	18	3,300
1999	470	70	28	28	14	3,300
2000	470	70	28	28	17	3,300
2001	460	70	28	28	14	3,200
Honolulu						
1997	50	70	10	19	3	900
1998	50	80	10	17	3	900
1999	60	70	10	15	3	900
2000	60	70 70	10	15	3	900
<b>2001</b>	60	<b>70</b>	10	15	3	800
Kauai						
	400	00	0	4	<sup>3</sup> 9	500
1997	120	30	8	4	<sup>3</sup> 11	500
1998	120	40	8	4	<sup>3</sup> 14	500
1999	100	30	8	4		500
2000	100	30	8	4	<sup>3</sup> 16	500
2001	110	30	8	4	<sup>3</sup> 16	500
Maui						
1997	180	60	5	7	3	800
1998	180	50	5	8	3	800
1999	170	60	4	8	3	800
2000	170	60	4	8	3	800
2001	170	60	4	8	3	800

<sup>&</sup>lt;sup>1</sup>Includes beef, dairy, and dairy replacement operations.

<sup>&</sup>lt;sup>2</sup>Based on farm definition of \$1,000 or more of agricultural sales.

<sup>&</sup>lt;sup>3</sup>Honolulu and Maui combined with Kauai to avoid disclosure of individual operations.

Year	Sugar (unprocessed cane)	Pineapples (fresh equivalent)	Vegetables, ginger root, herbs, and melons	Fruits (excluding pineapples)	Coffee (parchment)
		<u> </u>	1,000 dollars	<u> </u>	l.
State					
1997	85,500	91,721	46,271	29,564	28,200
1998	87,400	92,776	51,149	24,530	24,700
1999	86,800	101,448	56,438	28,525	21,000
2000	62,600	101,530	59,159	31,364	23,055
2001	57,800	96,337	62,043	30,190	19,600
Counties:					
Hawaii					
1997	0	*	17,435	21,018	16,245
1998	0	*	16,249	14,672	16,100
1999	0	*	18,569	15,546	9,300
2000	0	*	17,910	17,522	15,200
2001	0	*	17,743	18,724	13,175
Honolulu					
1997	0	63,426	16,224	4,814	4
1998	0	64,363	22,098	6,487	4
1999	0	73,123	27,419	<sup>3</sup> 8,534	4
2000	0	72,085	29,982	8,985	4
2001	0	69,222	32,601	7,538	4
Kauai					
1997	31,600	*	850	2,596	4
1998	28,700	*	1,047	2,320	4
1999	26,600	*	931	3,389	4
2000	18,700	*	1,446	3,755	4
2001	12,900	*	1,574	3,007	4
Maui					
1997	53,900	28,295	11,762	1,136	4
1998	58,700	28,413	11,755	1,051	4
1999	60,200	28,325	9,519	1,056	4
2000	43,900	29,445	9,821	1,102	4
2001	44,900	27,115	10,125	921	4
	at end of table.	,· · · ·	,	<del></del> -	Contir

SUMMARY: Value of crop sales, by counties, 1997-2001 -- Continued

Year	Macadamia nuts (in-shell)	Taro	Seed crops	Flowers and nursery products 1	Total crops <sup>2</sup>
•	,	•	1,000 dolla	rs	
State					
1997	43,500	2,805	25,150	66,655	420,306
1998	37,375	3,180	25,300	73,207	420,734
1999	37,855	3,604	30,500	75,725	443,111
2000	29,500	3,710	32,200	82,684	426,582
<b>2001</b>	32,480	3,392	32,800	87,976	424,057
Counties:					
Hawaii	4		4		
1997	4	698	4	34,501	130,737
1998	4	627	4	39,153	121,676
1999	4	632	4	42,462	121,939
2000	4	506	4	47,499	128,161
2001	4	443	4	51,283	134,466
Honolulu	4	4	4		
1997	4	4	4	22,131	109,072
1998	4	4	4	23,743	124,630
1999	4	4	4	21,865	142,407
2000	4	4	4	24,001	145,784
2001	4	4	4	24,916	145,372
Kauai					
1997	4	1,657	4	1,804	59,425
1998	4		4		
	4	1,976	4	1,360	49,612
1999	4	2,236	4	1,547	53,390
2000	4	2,520	4	1,266	40,286
2001		2,258		1,911	35,359
Maui					
1997	4	4	4	8,219	121,072
	4	4	4		
1998	4	4	4	8,951	124,816
1999	4	4	4	9,851	125,375
2000	4	4	4	9,918	112,351
2001	·		•	9,866	108,860

<sup>\* =</sup> Less than \$50,000.

<sup>&</sup>lt;sup>1</sup> Flowers, foliage, and nursery products.

<sup>&</sup>lt;sup>2</sup>Total crop values shown for individual counties are actual. Sum of individual commodities may not add to total. Forage crops' and Forest product's value combined and included in total crop value.

<sup>3</sup> Revised.

<sup>&</sup>lt;sup>4</sup> Data not shown separately to avoid disclosure of individual operations but combined and included in the State total.

SUMMARY: Value of livestock sales, total value of crop, livestock sales, aquaculture, and government payments, by counties, 1997-2001

							Tatal anama	
Year	Cattle 1	Hogs <sup>1</sup>	Milk	Eggs	Total livestock <sup>2</sup>	Aquaculture	Total crops, livestock and aquaculture 3	Government payments 4
					1,000 dollars		-	
Ctata								
State	44.000	4.000	00 470	40.000	67.700	40.000	E04 70E	F.F. 4
1997	14,323	4,902	29,479	12,986	67,799	16,600 16,620	504,705 510,062	554
1998 1999	16,861 16,806	5,235 5,072	33,293 31,270	11,220 10,803	72,708 69,881	18,102	531,094	23 820
2000	19,204	4,425	28,102	10,503	68,248	22,170	517,000	11,927
2001	18,007	4,546	26,546	9,640	64,815	22,200	511,072	3,860
	-,	,	-,-	,	,	,	, ,	7,555
Counties:								
Hawaii								
1997	9,658	404	5	5	19,078	13,380	163,195	NA
1998	11,312	420	5	5	20,846	13,383	155,905	NA
1999	12,363	569	5	5	22,531	13,377	157,847	NA
2000	14,138	475	5	5	26,079	16,009	170,249	NA
2001	13,438	456	5	5	25,867	16,198	176,531	NA
Honolulu								
1997	581	3,036	19,204	10,002	34,909	2,120	146,101	NA
1998	514	3,451	21,838	8,193	36,189	2,100	162,919	NA NA
1999	551	3,143	23,300	7,821	36,917	2,333	181,657	NA
2000	556	2,637	19,387	7,471	31,920	2,985	180,689	NA
2001	604	2,882	18,920	6,666	31,018	2,815	179,205	NA
Kauai								
1997	1,082	454	5	5	4,000	5	63,645	NA
1998	1,394	539	5	5	5,116	5	54,979	NA NA
1999	1,027	466	5	5	4,543	5	59,731	NA
2000	1,280	378	5	5	3,853	5	46,321	NA
2001	1,527	369	5	5	2,511	5	40,464	NA
Moui								
Maui	2 002	1 000	5	5	0.040	5	6424 705	NΙΛ
1997 1998	3,003	1,008 825	5	5	9,813	5	<sup>6</sup> 131,765	NA NA
1998	3,641 2,865	825 894	5	5	10,557 5,890	5	136,259 131,859	NA NA
2000	3,230	935	5	5	6,396	5	119,741	NA NA
<b>2001</b>	<b>2,438</b>	<b>839</b>	5	5	5,419	5	114,872	NA NA

NA = Not available.

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<sup>&</sup>lt;sup>1</sup> Excludes interfarm sales; includes out-of-State sales of slaughter cattle and feeder calves.

<sup>&</sup>lt;sup>2</sup>Sum of individual commodities may not add to total. Includes sheep, wool, turkeys, horses, honey, beeswax, broilers, and chickens.

<sup>&</sup>lt;sup>3</sup> Total includes aquaculture beginning 1994.

<sup>&</sup>lt;sup>4</sup> Includes all government payments, such as Agricultural Conservation Program, Cattle Indemnity Payment Program, Dairy Indemnity Payment Program, Emergency Conservation Program, Forestry Incentives Program, Emergency Feed Program, wool payments, and sugar support.

5 Data not shown separately to avoid disclosure of individual operations but combined and included in the State total.

<sup>&</sup>lt;sup>6</sup> Revised.

U.S. Food Expenditures by families and individuals, selected years, 1929-2001

Voor	Disposable	Expenditures for food									
Year	personal income	At hor	me <sup>1</sup>	Away from	n home 2	Tota	l <sup>3</sup>				
	Billion dollars	Billion dollars	Percent	Billion dollars	Percent	Billion dollars	Percent				
1929	83.2	16.9	20.3	2.6	3.1	19.5	23.5				
1934	52.7	11.1	21.1	1.7	3.2	12.8	24.3				
1939	71.4	13.0	18.1	2.3	3.2	15.2	21.3				
1944	148.3	22.1	14.9	5.1	3.4	27.2	18.4				
1949	191.1	34.3	17.9	7.8	4.1	42.0	22.0				
1954	264.5	42.4	16.0	9.3	3.5	51.7	19.5				
1959	351.2	50.1	14.3	12.1	3.5	62.3	17.7				
1964	463.0	55.5	12.0	15.7	3.4	71.2	15.4				
1969	675.0	69.0	10.2	23.4	3.5	92.3	13.7				
1974	1,072.3	107.3	10.0	38.5	3.6	145.8	13.6				
1979	1,808.2	164.0	9.1	76.9	4.3	240.9	13.3				
1984	2,887.6	224.0	7.8	121.9	4.2	345.8	12.0				
1989	4,016.3	285.1	7.1	175.2	4.4	460.3	11.5				
1994	5,165.4	339.1	6.6	217.2	4.2	556.3	10.8				
1999	6,618.0	412.3	6.2	270.6	4.1	682.9	10.3				
2001	7,417.3	440.4	5.9	298.4	4.0	738.9	10.0				

<sup>&</sup>lt;sup>1</sup>Food purchases from grocery stores and other retail outlets, including purchases with food stamps and WIC vouchers and food produced and consumed on farms (valued at farm prices) because the value of these foods is included in personal income. Excludes government-donated foods.

<sup>2</sup>Purchases of meals and snacks by families and individuals, and food furnished to employees since it is included in personal income. Excludes food paid for by government and business, such as donated foods to schools, meals in prisons and other institutions, and expense-account meals.

<sup>3</sup>Total may not add due to rounding.

Source: Economic Research Service, U.S. Department of Agriculture.

## Record highs and lows for selected items, State of Hawaii

ltono	Lloit	Record	high	Record	low	Year
Item	Unit	Quantity	Year <sup>1</sup>	Quantity	Year <sup>1</sup>	estimate started
Anthuriums						
Area in production	1,000 sq. ft.	20,908	1983	7,013	1964	1964
Total sold	1,000 dozs.	2,532	1980	216	1959	1959
Price <sup>2</sup>	\$/doz.	9.09	1997	.73	1966	1959
Avocados						
Harvested	Acres	330	1986	90	1975	1946
Production	1,000 lbs.	1,600	1982	400	1996	1946
Price <sup>2</sup>	¢/lb.	60.0	1999	6.1	1959	1946
Bananas						
Harvested	Acres	1,550	2000	550	1977	1946
Production	1,000 lbs.	29,000	2000	4,470	1983	1946
Price <sup>2</sup>	¢/lb.	41.0	1992	4.6	1946	1946
Cabbage, Head						
Harvested	Acres	740	1947	370	1971	1946
Production	1,000 lbs.	15,750	1989	6,800	1953	1946
Price <sup>2</sup>	¢/lb.	22.0	2001	3.0	1959	1946
Coffee						
Harvested	Acres	6,800	2000	1,650	1985	1946
Production	1,000 lbs.	18,496	1957	990	1982	1946
Price <sup>2</sup>	¢/lb.	390.0	1989	17.8	1946	1946
Foliage, potted (indoor)						
Sales (value)	\$1,000	19,236	2001	171	1972	1972
Ginger Root						
Harvested	Acres	360	2001	11	1974	1946
Production	1,000 lbs.	18,000	2001	352	1974	1946
Price <sup>2</sup>	¢/lb.	92.3	1982	16.2	1949	1946
Guavas						
Harvested	Acres	1,040	1990	60	1957	1955
Production	1,000 lbs.	24,300	1990	1,737	1957	1955
Price <sup>2</sup>	¢/lb.	15.0	1990	3.1	1956	1955
Macadamia nuts						
Harvested	Acres	19,300	1995	830	1953	1946
Production	1,000 lbs.	58,000	1997	630	1946	1946
Price <sup>2</sup>	¢/lb.	90.0	1988	15.2	1946	1946
Papayas						
Harvested	Acres	2,650	1985	320	1952	1946
Production	1,000 lbs.	80,500	1984	5,525	1947	1946
Price <sup>2</sup>	¢/lb.	48.9	1997	3.2	1946	1946
See footnotes at end of table.						Contin

Record highs and lows for selected items, State of Hawaii -- Continued

To the	11.2	Record	high	Record	low	Year
ltem	Unit	Quantity	Year <sup>1</sup>	Quantity	Year <sup>1</sup>	estimate started
Pineapples						
Total in crop	Acres	76,700	1957	19,900	1997	1946
Production	1,000 tons	1,048	1955	323	2001	1950
Value (farm)	\$1,000	107,775	1991	29,700	1951	1950
Sugar <sup>3</sup>						
Harvested	Acres	145,000	1933	19,300	2001	1909
Yield/acre (sugar)	Tons/acre	12.76	2001	4.81	1910	1909
Production (raw sugar)	1,000 tons	1,234	1966	301	2000	1909
Price <sup>2</sup> (sugar)	\$/Ton	633.00	1974	52.00	1940	1909
Taro						
Harvested	Acres	1,020	1948	320	1980	1946
Production	1,000 lbs.	14,195	1948	5,440	1983	1946
Price <sup>2</sup>	¢/lb.	53.0	2001	3.1	1949	1946
Tomatoes						
Harvested	Acres	600	1950	150	1972	1946
Production	1,000 lbs.	17,500	2001	3,300	1972	1946
Price <sup>2</sup>	¢/lb.	65.0	1990	9.1	1947	1946
Watermelons						
Harvested	Acres	870	1950	125	1979	1946
Production	1,000 lbs.	20,400	1995	1,130	1979	1946
Price <sup>2</sup>	¢/lb.	25.7	1981	6.4	1955	1946
Cattle and calves						
Jan. 1 inventory	Head	249,000	1971	130,000	1946	1946
Production (lv. wgt.)	1,000 lbs.	64,750	1989	25,470	1953	1946
Price <sup>2</sup>	\$/cwt.	57.50	1993	12.30	1946	1946
Hogs and pigs						
Dec. 1 inventory	Head	72,000	1965	26,000	2000	1960
Production (lv. wgt.)	1,000 lbs.	13,159	1978	5,425	2001	1960
Price <sup>2</sup>	\$/cwt.	83.80	2001	29.50	1964	1960
Milk						
Marketings	Million lbs.	157.1	1988	65.2	1946	1946
Production per cow	lbs./cow	14,494	1998	8,750	1960	1960
Price <sup>2</sup>	\$/cwt.	26.50	1999	6.75	1946	1946
Eggs						
Layers Dec. 1	Head	1,037,000	1974	302,000	1950	1950
Production	Million eggs	229.3	1979	120.0	1958	1958
Price <sup>2</sup>	¢/doz.	90.6	1997	39.2	1968	1958

<sup>&</sup>lt;sup>1</sup> In case of a tie, the most recent year was used. <sup>2</sup> Prices are annual or crop-year average.

<sup>&</sup>lt;sup>3</sup> Primary data source, Hawaiian Sugar Planters' Association.

### AGRICULTURE'S CONTRIBUTIONS TO HAWAII'S ECONOMY, 2000

If you inquire about the size of a condominium unit, one person might respond by stating the number of bedrooms, bathrooms, and associated parking stalls. Alternatively, another might state the square-foot area of its interior area and lanai. Both descriptions convey useful but different information.

Likewise, when we describe the contribution of agriculture to Hawaii's economy, we can portray it in several ways. The actual estimates may vary depending on what is defined as "agriculture" and on the methodology applied to develop the estimates. Here, we define agriculture as including farm production, forestry, fisheries, agricultural services, and food processing, as well as the related distribution margins (transportation, wholesale, and retail) used in delivering agricultural products and services. Then, we summarize and compare three measures of contributionsales, value added (GSP), and employment--for three benchmark years: 1992, 1997, and 2000. (For more detail on this subject, see CTAHR publication EI-3, Agriculture's Contribution to Hawaii's Economy--An Update, available at <www.ctahr.hawaii.edu>.

#### Agriculture sales

Sales value is the most common measure of economic activities. It includes the farmgate value routinely reported by the Hawaii Department of Agriculture. Total agriculture sales (farm production, agricultural service, forestry and fisheries, and food processing) decreased from \$2.14 billion in 1992 to \$1.87 billion in 1997 but rebounded to \$1.94 value declined sharply by 10% annually during the 1992-2000 period, pineapple sales value remained stable at \$102 million after a slight decline in 1997. The continual decrease in sugarcane sales value is largely offset by the tremendous growth in sales value of diversified agriculture (including seed crops, coffee, macadamia nuts, fruits, vegetables, flowers, and nursery products), which increased at an annual rate of 3.8% between 1992 and 2000. Reflecting this trend, the sales value of diversified agriculture jumped from just over 50% of total farm production in 1992 to almost 70% in 2000. Diversified agriculture posted record high sales of \$357 million in 2000.

#### Value added--the contribution to GSP

An industry's gross state product (GSP) is the value added in production contributed by labor and property. It is equivalent to the value of production minus the value of intermediate goods that producers buy from other producers. Hawaii's economy as measured by total GSP decreased slightly at an annual rate of 0.8% during the 1992-1997 period, but it rebounded at a yearly rate of 1.7% from 1997 to 2000. Agriculture's GSP likewise decreased during the 1992-1997 period, at a higher annual rate of 2.3%, but it came back strongly from 1997 to 2000 with a robust annual rate of increase of 2.5%. During this latter period, agriculture's contribution to Hawaii's economy had a higher rate of growth than the other sectors combined. Agriculture,

including its distribution margins, contributes 3.1% of Hawaii's total GSP--a fairly constant share since 1992.

#### Agriculture's contribution to employment

Employment (the number of full and part-time jobs) provides another good indicator in measuring the contribution of an industry to the economy. In 1992, agriculture contributed 4.2% of total employment in the state, but it declined slightly to 3.7% in 1997, before reversing the trend and rising to 3.8% in 2000. When distribution margins are included, agriculture in 2000 contributed over 38,000 jobs, or 5.0% of the total statewide employment.

#### Alternate methodology

The U.S. Department of Agriculture's Economic Research Service (USDA-ERS) also estimates the impact of agriculture in Hawaii.ERS uses the national input-output table to assess the total economic activity (in terms of value added, employment, and output) in providing food, clothing, tobacco, flowers, and other agricultural products to the final consumers. By this measure, in 1997 the estimated total contribution of Hawaii's agriculture in terms of value added was \$4.72 billion and employment was 114,431 jobs; these correspond to 12.3% of Hawaii's total value added and 15.4% of state employment. These estimates are obviously higher than those presented above, primarily due to the much-expanded definition of agriculture used by ERS.

<sup>1</sup> Dr. William Edmondson, ERS-USDA, provided the 1997 estimates, the most recent available.

Sales by agricultural sector

#### \$2,500 Diversified \$264 \$2,000 \$10 \$357 \$15 \$327 \$102 \$1.500 \$294 \$63 \$344 \$323 \$1,000 \$1.326 \$1.072 \$1,046 processin \$500

at producers buy from other producers. Hawaii's economy as easured by total GSP decreased slightly at an annual rate of 3% during the 1992-1997 period, but it rebounded at a yearly see of 1.7% from 1997 to 2000. Agriculture's GSP likewise

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### Farm Business Balance Sheet, State of Hawaii, December 31, 1996-99

	1996	1997	1998	1999
		Thousand dollars		
Farm assets	3,627,681	3,552,630	13,766,429	3,643,782
Farm debt <sup>2</sup> Real estate Nonreal estate	233,660 136,728 96,932	250,756 145,236 105,520	264,786 156,906 107,880	257,846 149,929 107,917
Equity	3,394,021	3,301,874	<sup>1</sup> 3,501,643	3,385,936
Ratio: Debt/equity Debt/assets	6.9 6.4	7.6 7.1	<sup>1</sup> 7.6 <sup>1</sup> 7.0	7.6 7.1

<sup>&</sup>lt;sup>1</sup> Revised

Source: Economic Research Service, USDA.

## Farm Financial Indicators - value added to the Hawaii economy by the agricultural sector via the production of goods and services, 1997-2001

	1997	1998	1999	2000	2001
			Thousand dollars		
Final crop output	423,047	423,017	439,925	429,831	419,601
Final animal output	93,303	87,687	84,254	85,149	92,875
Services and forestry	31,829	31,936	32,811	33,845	33,191
Final agricultural sector output 1	548,179	542,640	556,990	548,825	545,667
ess: Purchased inputs	196,481	188,626	189,899	194,503	199,208
Farm origin	42,685	39,739	37,046	36,446	34,301
Manufactured inputs	69,959	63,452	63,676	68,787	71,005
Other purchased inputs	83,837	85,435	89,177	89,270	93,902
plus: Net government transactions	(6,936)	(7,315)	(6,328)	4,521	(3,623)
Gross value added	344,763	346,698	360,763	358,843	342,836
ess: Capital consumption	37,105	37,268	37,361	37,923	37,617
Net value added <sup>1</sup>	307,658	309,430	323,402	320,920	305,219
ess: Payments to stakeholders	192,314	201,084	220,100	217,527	211,322
Employee compensation (total hired labor)	156,364	165,848	186,121	182,430	177,034
Net rent received by nonoperator landlords	16,410	15,312	14,031	14,574	14,190
Real estate and nonreal estate interest	19,540	19,924	19,948	20,523	20,098
Net farm income <sup>1</sup>	115,344	108,346	103,302	103,393	93,897

<sup>&</sup>lt;sup>1</sup> Value of agricultural sector production is the gross value of the commodities and services produced within a year. Net value-added is the sector's contribution to the Hawaii economy and is the sum of the income from production earned by all factors-of-production. Net farm income is the farm operators' share of income from the sector's production activities. The concept presented is consistent with that employed by the Organization for Economic Cooperation and Development.

 $Source: Economic \ Research \ Service/USDA. \ E-Mail: \underline{rogers@ers.usda.gov.} \ Revised: \ July \ 30, \ 2001.$ 

<sup>&</sup>lt;sup>2</sup> Excludes debt for nonfarm purposes.

#### 2001 SUGAR AND SPECIALTY CROP HIGHLIGHTS

#### **SUGAR**

Sugar production for 2001 decreased 18 percent from the previous year to 246,000 tons of 96° raw sugar. A 36 percent decline in acreage for harvest accounted for the lower production. Plantations were able to harvest 1.9 million tons of sugarcane from 19,300 acres for an average yield of 97.3 tons of sugarcane per acre. Sugar prices during 2001 rebounded 14 percent to \$351 per ton of 96° raw sugar, resulting in a total value of \$86.4 million for raw sugar, a 7 percent decrease from 2000.

#### **COFFEE**

Hawaii coffee production for the 2001-02 season was 8.0 million pounds (parchment basis), down 8 percent from the previous season's harvest of 8.7 million pounds. Coffee farmers received an average of \$2.45 per pound (parchment equivalent) for the 2001-02 season, 8 percent less than the previous year. Total farm revenues are estimated at \$19.6 million, down 15 percent from the 2000-01 season.

A combination of factors resulted in lower coffee production during the 2001-02 season. On the Big Island, weather conditions played a major role as uneven rainfall produced an early and relatively short harvest. Heavy pruning of trees by some farmers following the previous season's large harvest also contributed to the downturn in output. Coffee production on the other islands was hampered by dry weather, but more significantly by changes in operation. One relatively large company closed its coffee growing operations in 2001, while two other major growers either experienced a change in ownership or management of their coffee fields.

Harvested acreage totaled 6,300 acres during the 2001-02 season, down 7 percent or 500 acres from the 2000-01 season - the largest drop in harvested acreage in 26 years.

#### **MACADAMIA NUTS**

Hawaii's 2001-02 macadamia nut crop was estimated at 56.0 million pounds net, wet-in-shell, 6.0 million pounds above the previous season's crop. Weather conditions had variable effects on orchards depending on location. Orchards in drier areas experienced a decline in useable nuts, but improved yields in orchards in areas of normally high rainfall were more than offsetting. Rains that fell in late 2001 and early 2002 benefitted orchard conditions and prospects for the 2002-03 crop in the drier areas. Lower prices in recent years have caused some smaller growers to switch from macadamia nuts to other crops. Overall yields averaged 3,150 pounds per acre (net, wet-in-shell), up 330 pounds from the previous season.

Total acreage in crop dropped 400 acres from the previous year to 18,000 acres, the lowest since the 1984-85 crop year. Virtually all acreage was harvested, totaling 17,800 acres, up 100 from a year ago.

The farm price for net, wet in-shell macadamia nuts averaged 58.0 cents per pound this season, down 1.0 cent from the previous season average, and the lowest since the 1978-79 crop. The farm value for the 2001-02 crop is estimated at \$32.5 million, up 10 percent from last year. On-going foreign competition continued to put downward pressure on Hawaii grower prices.

## COFFEE: Number of farms, acreage, yield, marketings, price, and value, by counties, 1997-2001

Crop	Forms	Ac	reage	Viold <sup>2</sup>	Markatings 3		Farm prices		Value of	Green
year 1	Farms	In crop	Harvested	Yield <sup>2</sup>	Marketings <sup>3</sup>	Cherry	Parchment	All <sup>4</sup>	sales	production
	Number	,	Acres	1,0	000 pounds	Cents per pound			1,000 dollars	1,000 pounds
State										
1997-98	585	7,000	5,800	1.6	9,400			300.0	28,200	7,720
1998-99	610	7,400	6,100	1.6	9,500			260.0	24,700	7,600
1999-00	650	7,700	6,400	1.6	10,000			210.0	21,000	8,100
2000-01	670	7,900	6,800	1.3	8,700			265.0	23,055	7,000
2001-02	700	8,000	6,300	1.3	8,000			245.0	19,600	6,400
Counties:										
Hawaii										
1997-98	575	2,490	1,900	1.5	2,850	135.0	700.0	570.0	16,245	2,300
1998-99	600	2,800	2,170	1.6	3,500	130.0	500.0	460.0	16,100	2,800
1999-00	635	3,200	2,400	1.2	3,000	70.0	360.0	310.0	9,300	2,400
2000-01	650	3,350	2,700	1.4	3,800	85.0	425.0	400.0	15,200	3,000
2001-02	675	3,430	2,850	1.1	3,100	85.0	425.0	3	5	2,500
Honolulu/	Kauai/M	aui <sup>6</sup>								
1997-98	10	4,510	3,900	1.7	6,550			183.0	11,955	5,420
1998-99	10	4,600	3,930	1.5	6,000			143.0	8,600	4,800
1999-00	15	4,500	4,000	1.8	7,000			167.0	11,700	5,700
2000-01	20	4,550	4,100	1.1	4,900			160.0	7,855	4,000
2001-02	25	4,570	3,450	1.4	4,900			5	5	3,900

<sup>&</sup>lt;sup>1</sup> Coffee harvesting occurs throughout the year in Hawaii. The main harvest normally begins in late summer and extends to the early part of the following year.

<sup>&</sup>lt;sup>2</sup> Average yields based on parchment equivalent marketings and harvested acreage.

<sup>&</sup>lt;sup>3</sup> Expressed in parchment equivalent pounds. Coffee marketed in cherry form was converted to an equivalent parchment weight and added to parchment marketings.

<sup>&</sup>lt;sup>4</sup>Represents an average farm price for parchment equivalent sales. Obtained by dividing farm revenues from the sale of cherry and parchment coffee by total marketings (parchment equivalent basis).

<sup>&</sup>lt;sup>5</sup> Not published to avoid disclosure of individual operations.

<sup>&</sup>lt;sup>6</sup>Kauai and Maui combined with Honolulu to avoid disclosure of individual operations.

#### GINGER ROOT

Hawaii's ginger root farmers harvested 18.0 million pounds during the 2000-01 season, up 33 percent from the previous season and equivalent to the all-time high which was set during the 1997-98 season. Farm prices declined to an average of 45.0 cents per pound during the 2000-01 season, and total farm revenues were pegged at \$8.1 million, down 9 percent from the 1999-2000 season.

Hawaii farmers harvested 360 acres during the 2000-01 season, up 33 percent from the previous season and matching the record high last achieved during the 1997-98 season. Farmers could have harvested even more acreage had it not been for some heavy rains in early November 2000.

Due largely to its perishable nature, large increases in ginger root production normally result in relatively large declines in the farm price. For example, during the 1997-98 season when production increased 49 percent, farm prices declined 40 percent. A similar thing occurred during the 2000-01 season when production rose 33 percent and the average farm price declined 32 percent to a 14-season low of 45.0 cents per pound.

GINGER ROOT: Acreage, yield, production, price, and value, State of Hawaii, 1997-2001

Year	Harvested acres	Yield per acre	Production	Farm price	Value of sales
		1,000 po	unds	Cents per pound	1,000 dollars
1997	275	44.0	12,100	<sup>1</sup> 67.0	8,107
1998	360	50.0	18,000	40.0	7,200
1999	350	46.0	16,100	50.0	8,050
2000	270	50.0	13,500	66.0	8,910
2001	360	50.0	18,000	45.0	8,100

<sup>&</sup>lt;sup>1</sup>Revised.

#### GINGER ROOT: U.S. imports, 1997-2001

Year	Unground (including fresh)	Ground Sweet		Candied	Total
			1,000 pounds		
1997	29,649	854	2,046	1,267	33,816
1998	30,375	563	1,816	1,512	34,265
1999	33,679	669	2,059	2,000	38,406
2000	41,140	825	2,845	2,080	46,890
2001	39,682	2,255	2,649	2,151	46,737

Source: Foreign Agricultural Trade of the United States, Economic Research Service, U.S. Department of Agriculture.

### FRESH HERBS: Production, price, and value, State of Hawaii, 1997-2001

		Basil			Chinese	Other	All
Year	Sweet (Italian)	Asian	Total	Parsley	parsley (Cilantro)	herbs <sup>1</sup>	herbs
Production -	- 1,000 pounds						
1997	1,100	500	1,600	200	100	300	2,200
1998	1,200	500	1,700	125	75	500	2,400
1999	1,500	600	2,100	190	90	520	2,900
2000	1,600	500	2,100	220	80	500	2,900
2001	1,500	650	2,150	330	100	620	3,200
Farm price -	dollars per pour	nd					
1997	2.00	1.00		1.75	2.65	2.30	
1998	1.90	.90		2.05	2.70	2.20	
1999	2.00	.70		2.00	2.15	2.70	
2000	2.00	.80		2.00	3.00	2.20	
2001	2.00	.80		2.00	2.10	2.45	
Farm value -	- 1,000 dollars						
1997	2,200	500	2,700	350	265	690	4,005
1998	2,280	450	2,730	256	203	1,100	4,289
1999	3,000	420	3,420	380	194	1,404	5,398
2000	3,200	400	3,600	440	240	1,100	5,380
2001	3,000	520	3,520	660	210	1,519	5,909

<sup>&</sup>lt;sup>1</sup> Includes spearmint, dill, and other miscellaneous herbs. Also includes small amounts of basil and parsley for which an individual total could not be obtained or published separately in order to avoid disclosure of individual operations.

### SEED CROPS: Number of farms, acreage, outshipments, and value, State of Hawaii, 1997-2001

				Total	Value <sup>2</sup>				
Crop year 1	Farms	Total	Nursery	Seed increase	Grow-out or observation	outshipments of seed	Total	Seed corn	Other seed crops
	Number			Acres	1,000 pounds	1,000 dollars			
1997-98	8	2,960	1,040	1,830	90	4,050	25,150	24,684	466
1998-99	8	3,070	1,120	1,870	80	5,000	25,300	24,620	680
1999-00	8	2,450	1,045	1,300	105	3,500	30,500	28,700	1,800
2000-01	8	3,120	850	2,145	125	5,000	32,200	31,620	580
2001-02	8	3,300	925	2,250	125	6,340	32,800	32,275	525

<sup>&</sup>lt;sup>1</sup> Seed crops are grown year-round in Hawaii. However, the main season is from November to June.

<sup>&</sup>lt;sup>2</sup> Value is based on sales or gross operational budgets.

## SUGARCANE: Number of farms, acreage, yield, production, price, and value, by counties, 1997-2001 <sup>1</sup>

		Acr	reage	Yield	per acre	Production	Farm	Value of
Year	Farms <sup>2</sup>	In crop <sup>2</sup>	Harvested for sugar	Sugarcane <sup>3</sup>	Raw sugar 96°	of cane for sugar	price <sup>3</sup>	cane for sugar <sup>4</sup>
	Number	1,00	0 acres		Tons	1,000 tons	Dollars per ton	Million dollars
State								
1997	4	67.8	32.0	91.4	11.15	2,925	29.20	85.5
1998	4	67.6	30.3	90.0	11.66	2,727	32.00	87.4
1999	4	67.0	35.4	81.7	10.38	2,892	30.00	86.8
2000	3	60.0	30.2	78.3	9.97	2,365	26.30	62.2
2001	2	46.0	19.3	97.3	12.76	1,878	30.80	57.8
Counties								
Kauai	5.							
1997	2	25.4	12.3	92.8	10.80	1,141	27.70	31.6
1998	2	24.7	11.3	83.5	10.29	944	30.40	28.7
1999	2	23.7	13.9	66.0	8.08	917	29.00	26.6
2000	2	23.1	12.9	58.2	7.03	751	24.70	18.5
2001	1	10.6	4.2	92.1	13.04	387	33.40	12.9
Maui								
1997	2	42.4	19.7	90.6	11.36	1,784	30.20	53.9
1998	2	42.9	19.0	93.8	12.48	1,783	32.90	58.7
1999	2	43.3	21.5	91.9	11.86	1,975	30.50	60.2
2000	_ 1	36.9	17.3	93.3	12.18	1,614	27.10	43.7
2001	1	35.4	15.1	98.7	12.68	1,491	30.10	44.9

<sup>&</sup>lt;sup>1</sup> Primary data source, Hawaii Agricultural Research Center.

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<sup>&</sup>lt;sup>2</sup> At end of year.

<sup>3</sup> Yield and farm price may not compute exactly due to rounding.

<sup>4</sup> Value of cane for sugar estimated by deducting processing and marketing costs from value of sugar and molasses.

SUGAR: Production of raw sugar and molasses, price, and value, by counties, 1997-2001 1

	Mill pro	duction	Average retu	rns received 2	Val	ue of production	
Year	Raw sugar 96°	Molasses 3	Raw sugar 96°	Molasses 3	Raw sugar 96°	Molasses 3	Total
	1,000	) tons	Dollars per ton			- Million dollars	
State							
1997	357	131	357	38.60	127.5	5.0	132.5
1998	354	118	368	23.50	130.3	2.8	133.1
1999	368	137	352	13.30	129.5	1.8	131.3
2000	301	102	309	27.20	93.1	2.8	95.9
2001	246	86	351	49.70	86.4	4.2	90.6
Counties:							
Kauai							
1997	133	41	354	39.80	47.1	1.6	48.7
1998	117	33	366	24.50	42.8	.8	43.6
1999	113	38	351	13.70	39.7	.5	40.2
2000	91	31	305	29.60	27.8	.9	28.7
2001	55	14	349	53.00	19.2	.7	19.9
Maui							
1997	224	90	359	38.00	80.4	3.4	83.8
1998	237	85	369	23.10	87.5	2.0	89.5
1999	255	99	352	13.20	89.8	1.3	91.1
2000	210	71	311	26.20	65.3	1.9	67.2
2001	191	72	352	49.00	67.2	3.5	70.7

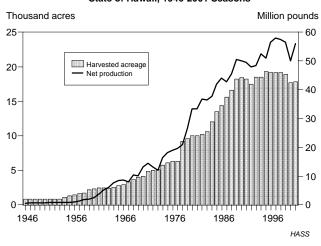
<sup>&</sup>lt;sup>1</sup> Primary data source, Hawaii Agricultural Research Center.
<sup>2</sup> Derived from production and value. State and county prices may not compute exactly due to rounding.
<sup>3</sup> Commercial.

## MACADAMIA NUTS: Number of farms, acreage, yield, production, moisture, price, and value, State of Hawaii, 1997-2001 crop years

		_		Yield Production 4		Average moisture		Farm prices 4		Farm	
Crop year <sup>1</sup>	Farms	In crop	Harvested <sup>2</sup>	per acre <sup>3</sup>	Gross <sup>5</sup>	Net <sup>6</sup>	Entire crop	Purchases only	Gross <sup>7</sup>	Net	value 8
	N/v van for a ve		A		4 000			Dawa and	Cents	•	1,000
	Number	,	Acres		- 1,000 poun	as	/	Percent	poui	na	dollars
1997-98	800	20,200	19,200	3.0	65,000	58,000	19.5	19.6	66.9	75.0	43,500
1998-99	800	20,200	19,200	3.0	66,000	57,500	20.5	20.8	57.0	65.0	37,375
1999-00	750	19,900	18,900	3.0	64,000	56,500	19.3	19.3	59.1	67.0	37,855
2000-01	650	18,400	17,700	2.8	56,000	50,000	21.0	21.0	52.7	59.0	29,500
2001-02	650	18,000	17,800	3.1	62,000	56,000	21.2	21.9	52.4	58.0	32,480

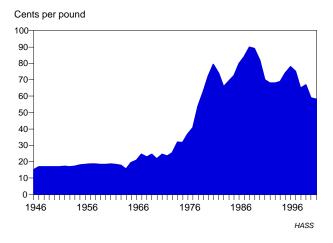
<sup>&</sup>lt;sup>1</sup> Season begins July 1st and ends June 30th of the following year. <sup>2</sup> Called bearing acreage prior to 1993-94 crop year. <sup>3</sup> Net production divided by acreage harvested. <sup>4</sup> Wet in-shell basis, delivered to processors. <sup>5</sup> Gross pounds delivered for processing. <sup>6</sup> Gross pounds delivered for processing less total spoilage. <sup>7</sup> Farm value divided by gross production. <sup>8</sup> Net production multiplied by net farm price.

#### MACADAMIA NUTS: Harvested Acreage and Net Production, State of Hawaii, 1946-2001 Seasons



#### MACADAMIA NUTS: Net Wet-in-shell Farm Prices, State of Hawaii, 1946-2001 Seasons





Grower sales of Hawaii's flower and nursery products totaled a record \$88.0 million in 2001. Wholesale value was 6 percent higher than the \$82.7 million value for 2000. Orchids, foliage, and potted flowering plant categories registered increases in 2001.

Hawaii county with \$51.3 million in sales was up 8 percent from the \$47.5 million in 2000. Honolulu farmers reported sales of \$24.9 million, 4 percent higher than 2000. Maui county totaled \$9.9 million in sales, 1 percent lower than a year ago. Kauai registered \$1.9 million in sales, 51 percent more than 2000.

FLORICULTURE AND NURSERY PRODUCTS: Value of grower sales, by counties, 1997-2001

Year	Cut flowers 1	Orchids <sup>2</sup>	Lei flowers	Foliage <sup>3</sup>	Potted flowering plants	All other nursery products 4	Unspecified sales 5	Total
					1,000 dollars			_
State								
1997	13,969	15,479	3,813	16,989	3,751	11,250	1,404	66,655
1998	15,176	15,790	3,485	<sup>6</sup> 15,403	3,892	17,982	1,479	73,207
1999	16,517	17,166	4,051	16,055	4,421	15,978	1,537	75,725
2000	16,297	18,106	3,615	18,295	5,044	19,850	1,477	82,684
2001	15,500	19,989	3,450	20,239	5,060	22,267	1,471	87,976
Counties	s:							
Hawaii								
1997	10,939	8,063	1,226	11,124	882	1,726	541	34,501
1998	11,410	9,114	1,022	<sup>6</sup> 11,612	1,676	3,715	604	39,153
1999	12,588	10,015	1,697	12,754	2,011	2,718	679	42,462
2000	12,592	10,319	1,140	15,757	2,120	4,859	712	47,499
2001	11,958	12,525	1,068	17,736	2,333	4,932	731	51,283
Honolu	lu							
1997	848	6,136	1,332	4,957	1,917	6,562	379	22,131
1998	774	5,839	1,258	<sup>6</sup> 3,331	1,387	10,745	409	23,743
1999	745	5,741	1,210	2,601	1,063	10,119	386	21,865
2000	680	6,515	1,098	1,940	1,609	11,832	327	24,001
2001	531	6,205	1,136	2,121	1,440	13,146	337	24,916
Kauai								
1997	76	7	7	7	7	1,555	173	1,804
1998	138	7	7	7	7	1,090	132	1,360
1999	133	411	7	72	118	696	117	1,547
2000	99	245	7	55	194	560	113	1,266
2001	353	281	7	7	140	1,039	98	1,911
Maui								
1997	2,106	7	7	7	7	5,802	311	8,219
1998	2,854	7	7	7	7	5,763	334	8,951
1999	3,051	999	7	628	1,229	3,589	355	9,851
2000	2,926	1,027	7 <b>7</b>	543 7	1,121	3,976	325	9,918
2001	2,658	978	,	,	1,147	4,778	305	9,866

<sup>&</sup>lt;sup>1</sup>Cut orchids included in "Orchids" category. <sup>2</sup>Excludes orchids used for lei flowers. <sup>3</sup>Includes potted, cut, and unfinished. <sup>4</sup>Includes bedding plants, plant rentals, sod, trees, and any other nursery products not elsewhere classified. Sum of county estimates may not add to State total due to rounding. <sup>5</sup>Includes grower sales greater than \$999 but less than \$10,000 which were not categorized. <sup>6</sup>Unfinished foliage, 1998 included in "All other nursery products". <sup>7</sup>Data not shown separately to avoid disclosure of individual operations but combined and included in the State total.

## FLORICULTURE AND NURSERY PRODUCTS: Number of farms, area, quantity, and value, State of Hawaii, 1997-2001 <sup>1</sup>

State of Hawaii, 1937-2001					
Crop	Farms having sales <sup>2</sup>	Production area	Quantity sold	Value of sales	
	Number	1,000 square feet	1,000	1,000 dollars	
CUT FLOWERS					
Anthuriums - dozens					
1997	61	11,420	758	6,892	
1998	75	11,285	834	6,301	
1999	68	11,500	1,019	6,725	
2000	64	NA	1,010	7,357	
2001	62	NA	992	6,904	
Birds of Paradise - dozens				•	
1997	31	2,740	78	486	
1998	24	2,285	66	495	
1999	25	5,650	86	566	
2000	26	NA	101	690	
2001	28	NA	103	695	
Carnations, miniature - bunches					
1997	8	205	91	320	
1998	5	115	47	124	
1999	4	75	51	131	
2000³					
<b>2001</b> <sup>3</sup>					
Chrysanthemums, pompon - bun	ches				
1997	4	295	177	409	
1998	6	265	196	358	
1999	4	250	251	588	
2000	4	NA	206	415	
2001	4	NA	217	447	
Ginger, pink - dozens					
1997	40	1,915	52	402	
1998	52	3,075	92	530	
1999	47	3,465	82	464	
2000	46	NA	81	542	
2001	44	NA	71	492	
Ginger, red - dozens					
1997	46	2,350	85	473	
1998	63	4,860	142	794	
1999	61	3,380	157	748	
2000	53	NA	137	750	
2001	55	NA	142	755	
See footnotes at end of table.				Continue	

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## FLORICULTURE AND NURSERY PRODUCTS: Number of farms, area, quantity, and value, State of Hawaii, 1997-2001 -- Continued

Crop	Farms having sales <sup>2</sup>	Production area	Quantity sold	Value of sales
	Number	1,000 square feet	1,000	1,000 dollars
Gingers, other - dozens				
1997	16	575	14	92
1998	30	830	18	144
1999	27	1,085	30	221
2000	26	NA	28	216
2001	22	NA	24	169
Heliconias - dozens				
1997	47	3,445	40	432
1998	56	5,775	56	664
1999	58	4,860	72	613
2000	54	NA	65	671
2001	52	NA	62	598
Proteas - stems				
1997	30	5,625	1,353	1,160
1998	28	8,015	2,996	1,738
1999	33	8,345	2,518	1,677
2000	25	NA	1,915	1,392
2001	26	NA	1,278	1,122
Roses <sup>4</sup> - stems				
1997				
1998				
1999				
2000	9	NA	5,144	2,057
<b>2001</b> <sup>3</sup>				
Other cut flowers - dozens				
1997	35	NA	NA	3,303
1998	38	NA	NA	4,028
1999	31	NA	NA	4,784
2000	32	NA	NA	2,207
2001	45	NA	NA	4,318

## FLORICULTURE AND NURSERY PRODUCTS: Number of farms, area, quantity, and value, State of Hawaii, 1997-2001 -- Continued

Crop	Farms having sales <sup>2</sup>	Production area	Quantity sold	Value of sales
	Number	1,000 square feet	1,000	1,000 dollars
DRCHIDS				
Cymbidiums, cut - flowers				
1997	8	275	348	137
1998	12	315	418	216
1999	12	335	537	337
2000	10	NA	509	315
2001	9	NA	372	232
Dendrobiums, sprays - dozens				
1997	56	3,505	368	2,549
1998	59	2,970	419	2,864
1999	49	2,610	378	2,608
2000	49	NA	340	2,335
2001	49	NA	415	2,990
Oncidiums, sprays - dozens				
1997	28	305	34	356
1998	32	485	58	580
1999	31	355	47	463
2000	37	NA	56	536
2001	35	NA	83	813
Other orchids, sprays 5 - dozens				
1997	5	NA	NA	25
1998	4	NA	NA	52
1999	6	NA	NA	28
2000	10	NA	NA	119
2001	9	NA	NA	29
Dendrobiums, potted 6 - pots				
1997	63	1,295	1,409	6,392
1998	63	NA	1,107	6,069
1999	72	NA	942	5,640
2000	74	NA	1,065	6,528
2001	76	NA	1,176	6,608
Phalaenopsis, potted 7 - pots				
1997				
1998	20	NA	221	1,178
1999	21	NA	205	1,169
2000	24	NA	143	1,030
2001	24	NA	154	926
Other orchids, potted - pots				
1997	56	1,235	1,295	6,020
1998	57	NA	951	4,831
1999	61	NA	1,551	6,921
2000	75	NA	1,561	7,243
2001	78	NA	2,256	8,392

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## FLORICULTURE AND NURSERY PRODUCTS: Number of farms, area, quantity, and value, State of Hawaii, 1997-2001 -- Continued

Crop	Farms having sales <sup>2</sup>	Production area	Quantity sold	Value of sales
	Number	1,000 square feet	1,000	1,000 dollars
LEI/INDIVIDUAL BLOOMS				
Carnations - blooms				
1997	7	NA	7,500	410
1998	9	NA	6,800	448
1999	7	NA	5,600	397
2000	6	NA	5,400	377
2001	6	NA	5,500	383
Dendrobiums - blooms				
1997	35	NA	24,800	725
1998	28	NA	28,900	855
1999	27	NA	21,700	673
2000	26	NA	19,900	615
2001	26	NA	21,000	672
Pikake - strands				
1997 <sup>8</sup>				
1998	5	NA	55.6	128
1999	7	NA	82.5	222
2000	8	NA	77.8	270
2001	8	NA	61.0	149
Plumerias - blooms				
1997	11	NA	31,800	833
1998	9	NA	23,800	601
1999	10	NA	45,000	931
2000	12	NA	21,700	538
2001	13	NA	30,100	723
Tuberoses - blooms				
1997	4	NA	8	8
1998	6	NA	19,500	912
1999	6	NA	20,400	959
2000	7	NA	22,100	987
2001	6	NA	18,800	915
Vanda, Miss Joaquim - blooms				
1997	9	NA	22,300	657
1998	9	NA	10,900	292
1999	7	NA	11,300	396
2000	7	NA	14,000	503
2001	6	NA	7,900	340
Other lei/individual - blooms				
1997	NA	NA	NA	1,188
1998	NA	NA	NA	249
1999	NA	NA	NA	473
2000	NA	NA	NA	325
2001	NA	NA	NA	268

## FLORICULTURE AND NURSERY PRODUCTS: Number of farms, area, quantity, and value, State of Hawaii, 1997-2001 -- Continued

Crop	Farms having sales <sup>2</sup>	Production area	Quantity sold	Value of sales
	Number	1,000 square feet	1,000	1,000 dollars
OLIAGE		, ,	,	,
OLIAGE	9			
Potted, primarily for indoor				
1997	60	6,395	NA	12,552
1998	74	5,035	NA	14,617
1999	65	5,265	NA	15,002
2000 10				
<b>2001</b> <sup>10</sup>				
Potted, dracaena 11				
1997				
1998				
1999				
2000	31	NA	NA	6,648
2001	32	NA	NA	8,443
Potted, palms 11				
1997				
1998				
1999				
2000	44	NA	NA	8,434
2001	45	NA	NA	8,280
Potted, hanging baskets 11				
1997				
1998				
1999				
2000	16	NA	NA	123
2001	15	NA	NA	129
Potted, other 11				
1997				
1998				
1999				
2000	39	NA	NA	1,880
2001	32	NA	NA	2,384
Potted, primarily for landsca				•
1997	62	NA	NA	3,515
1998 <sup>12</sup>	<del>-</del>			-,
1999 <sup>12</sup>				
2000 12				
2001 <sup>12</sup>				
See footnotes at end of table.	<del>_</del>			Contin

## FLORICULTURE AND NURSERY PRODUCTS: Number of farms, area, quantity, and value, State of Hawaii, 1997-2001 -- Continued

	tato or marram,	1007 2001 00110		
Сгор	Farms having sales²	Production area	Quantity sold	Value of sales
	Number	1,000 square feet	1,000	1,000 dollars
Ti leaves, cut - leaves				
1997	27	1,225	2,600	153
1998	41	2,585	6,000	412
1999	45	2,575	5,900	468
2000	37	NA	2,100	161
2001	39	NA	3,900	277
Unfinished foliage stock (for furt	her arowina on)			
1997	16	17,205	NA	511
1998 <sup>12</sup>	.0	,200		011
1999 <sup>12</sup>				
2000	12	NA	NA	702
2001	8	NA	NA	497
Other greens, cut				
1997	23	NA	NA	258
1998	35	NA	NA	374
1999	22	NA	NA	224
2000	32	NA	NA	347
2001	33	NA	NA	229
POTTED BEDDING/GARDEN				
Impatiens, New Guinea				
1997 <sup>12</sup>				
1997 1998 <sup>12</sup>				
1999 <sup>12</sup>				
2000	11	NA	104	129
2001	10	NA	131	193
Impatiens, other				
1997 <sup>12</sup>				
1998 <sup>12</sup>				
1999 <sup>12</sup>				
2000	8	NA	169	103
2001	10	NA	279	171
Other bedding/garden				
1997 <sup>12</sup>				
1998 <sup>12</sup>				
1999 <sup>12</sup>				
2000	30	NA	NA	2,502
2001	29	NA	NA	2,548
See footnotes at end of table.				Continued

## FLORICULTURE AND NURSERY PRODUCTS: Number of farms, area, quantity, and value, State of Hawaii, 1997-2001 -- Continued

Crop	Farms having sales <sup>2</sup>	Production area	Quantity sold	Value of sales
	Number	1,000 square feet	1,000	1,000 dollars
POTTED FLOWERING PLANTS				
Anthuriums - pots				
1997	21	190	140	390
1998	15	NA	113	321
1999	24	NA	144	495
2000	28	NA	182	677
2001	25	NA	177	609
Bromeliads 13 - pots				
1997				
1998	8	NA	88	423
1999	14	NA	112	626
2000	18	NA	111	593
2001	18	NA	139	616
Chrysanthemums 13 - pots				
1997				
1998	5	NA	127	573
1999	4	NA	159	677
2000	6	NA	178	738
2001	5	NA	176	737
Poinsettias - pots				
1997	28	590	238	900
1998	30	NA	263	1,012
1999	30	NA	332	1,233
2000	31	NA	334	1,292
2001	35	NA	328	1,272
Other potted flowering plants				
1997	40	NA	NA	2,461
1998	27	NA	NA	1,563
1999	26	NA	NA	1,390
2000	30	NA	NA	1,744
2001	34	NA	NA	1,826

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#### FLORICULTURE AND NURSERY PRODUCTS

# FLORICULTURE AND NURSERY PRODUCTS: Number of farms, area, quantity, and value, State of Hawaii, 1997-2001 -- Continued

Crop	Farms having sales <sup>2</sup>	Production area	Quantity sold	Value of sales
	Number	1,000 square feet	1,000	1,000 dollars
ORNAMENTALS & TREES				
1997	42	NA	NA	1,561
1998 <sup>12</sup>				,
1999 <sup>12</sup>				
2000 <sup>12</sup>				
<b>2001</b> 12				
PLANT RENTALS				
1997	37	NA	NA	2,925
1998	45	NA	NA	4,715
1999	32	NA	NA	3,226
2000	37	NA	NA	3,374
2001	42	NA	NA	3,098
LANDSCAPE PLANTS				7, 5, 5
1997 <sup>12</sup>				
1998 <sup>12</sup>				
1999 <sup>12</sup>				
2000	98	NA	NA	10,601
2001	109	NA	NA	12,851
OTHER NURSERY PRODUCTS 14				,
1997	88	NA	NA	6,764
1998	NA	NA	NA	13,267
1999	NA	NA	NA	13,113
2000	NA	NA	NA	3,141
2001	NA	NA	NA	3,406
UNSPECIFIED SALES 15				2, 22
1997				1,404
1998				1,479
1999				1,537
2000				1,477
2001				1,471
TOTAL				,
1997	670			66,655
1998	745			73,207
1999	765			75,725
2000	735			82,684
2001	790			87,976

NA = Not available. ¹Beginning 1992, includes only producers having total sales of \$10,000 or more. ²Number for each individual flower its count of those having sales of that item during each year; "Total" is unduplicated count. ³Included with "Other cut flowers". ⁴Prior to 2000, included with "Other cut flowers". ⁵Includes cattleyas, vanda hybrids, phalaenopsis, and paphiopedilums. ⁶Includes in bud/bloom and community pots. <sup>7</sup>Prior to 1998, included with "Other orchids, potted". ⁶Included with "Other lei/individual" to avoid disclosure of individual operations. ⁶Includes hanging baskets. ¹⁰Beginning 2000, separated into "Dracaena", "Palms", "Hanging baskets", and "Other". ¹¹Prior to 2000, included with "Potted, primarily for indoor or patio use". ¹²Included with "Other nursery products". ¹³Prior to 1998, included with "Other potted flowering plants". ¹⁴Includes flowers or nursery products not elsewhere classified. ¹⁵Beginning 1992, includes sales of growers greater than \$999 but less than \$10,000 which were not categorized.

## FLORICULTURE AND NURSERY PRODUCTS

# FLORICULTURE AND NURSERY PRODUCTS: Number of farms and growing area, by counties, 1997-2001

Year	Farms	Greenhouse 1	Artificial shade	Natural shade	Open field	Total area
	Number	1,000 s	square feet		Acres	
State						
1997	670	2,805	23,885	10	1,535	2,158
1998	745	2,810	24,200	9	2,050	2,679
1999	765	2,910	25,695	15	2,040	2,712
2000	735	3,235	25,180	7	2,060	2,719
2001	790	3,175	26,660	9	2,355	3,049
Counties:						
Hawaii						
1997	312	2,000	18,805	10	875	1,363
1998	355	1,975	19,620	9	1,155	1,660
1999	355	1,970	21,450	15	1,015	1,568
2000	335	2,425	20,675	6	920	1,456
2001	360	2,265	22,010	9	1,055	1,621
		_,	,0.0	·	1,000	.,02.
Honolulu						
1997	202	510	4,380	0	310	422
1998	205	480	3,810	0	415	514
1999	225	485	3,360	0	465	553
2000	205	395	3,480	0	495	584
2001	220	370	3,625	0	580	672
Kauai						
1997	50	60	355	0	<b>5</b> 5	65
1997	40	75	295	0 0	55 45	53
1996	40 35	75 90	295 265	0	45 85	93
2000	50	90 70	340	1	130	93 140
2000 <b>2001</b>	<b>60</b>	70 <b>115</b>	295	0	155	140 <b>164</b>
2001	60	113	295	U	155	104
Maui						
1997	106	235	345	0	295	308
1998	145	280	475	Ö	435	452
1999	150	365	620	0	475	498
2000	145	345	685	0	515	539
2001	150	425	730	Ŏ	565	592

<sup>&</sup>lt;sup>1</sup> Glass or glass substitute structure.

## FLORICULTURE AND NURSERY PRODUCTS

## FLORICULTURE AND NURSERY PRODUCTS: Out-of-State sales, State of Hawaii, 1997-2001

Commodity	1997	1998	1999	2000	2001
			1,000 dollars		
Anthuriums, cut	10,945	9,795	10,685	10,600	11,000
Birds of Paradise	720	945	710	980	860
Cymbidiums	80	130	110	100	110
Dendrobiums, sprays	3,545	3,820	2,875	3,395	3,500
Oncidium			270	545	660
Foliage, cut:					
Ti leaves	670	475	400	670	710
Other cut greens	885	1,070	845	1,060	1,480
Foliage, potted	10,320	12,220	12,785	13,525	16,200
Ginger, red	765	810	875	1,010	560
Gingers, other	450	800	890	830	460
Heliconias	820	955	970	1,400	1,270
Potted orchids:					·
Dendrobiums	3,510	4,360	4,120	3,850	4,930
Phalaenopsis	•		285	655	640
Other orchids	5,410	6,485	5,395	6,285	7,180
Proteas	2,025	2,405	2,130	1,930	1,480
Unfinished potted foliage stock	70	400	355	270	270
Mixed assortment of cut flowers					1,260
All other flowers and nursery					,
products	1,185	2,510	2,245	2,345	2,300
Total	41,400	47,180	45,945	49,450	54,870

<sup>&</sup>lt;sup>1</sup> Based on F.O.B. island value. Includes both wholesale and retail sales. Does not include sales of cut flowers, leis, etc., purchased within the State and hand carried out.

## DENDROBIUM ORCHIDS: Sales and value, State of Hawaii, 1997-2001 1

	Individual blossoms		Cut sprays						
Voor					In bud/bloom		Community pots		Total
	Number sold	. Value I		Value	Number sold	Value	Number sold	Value	value
	Million blooms	1,000 dollars	1,000 dozens	1,000 dollars	1,000 pots	1,000 dollars	1,000 pots	1,000 d	ollars
1997	24.8	725	368	2,549	1,249	5,599	160	793	9,666
1998	28.9	855	419	2,864	1,025	5,663	82	406	9,788
1999	21.7	673	378	2,608	816	5,119	126	521	8,921
2000	19.9	615	340	2,335	941	5,590	124	938	9,478
2001	21.0	672	415	2,990	1,036	5,926	140	682	10,270

<sup>&</sup>lt;sup>1</sup> Includes only producers with total sales of \$10,000 or more.

#### **2001 FRUIT HIGHLIGHTS**

Hawaii fruit growers harvested 747.7 million pounds of fruit for fresh and processed utilization in 2001, down 8 percent from 2000. Fruit acreage totaled 27,244 acres, 2 percent less than the previous year. Compared with 2000, harvests were smaller for all fruits except papaya. Overall fruit value was pegged at \$126.5 million. The decline over the previous year was mainly due to lighter pineapple harvest. Farm values were also down for papaya, other fruits, and avocado. Honolulu County continued to rank first for fruit value, with pineapple as the top contributor.

#### **HAWAII**

Farm sales from Hawaii county totaled \$18.7 million, up 7 percent from a year ago and mainly generated by higher papaya and banana values. Papaya sales made up over half of the island's total with farm receipts of \$10.2 million. Banana output continued to be ranked second with a value of \$6.3 million, 28 percent more than 2000. Guavas, citrus, tropical specialty fruits, strawberries, avocados, and grapes made up the remaining 12 percent of Hawaii county's fruit value.



#### **HONOLULU**

Honolulu County grown fruits totaled sales of \$76.8 million in 2001 compared to \$81.1 million during the previous year. Honolulu County continued to rank first among the counties with 61 percent of the State fruit value. The decrease in value was mainly caused by pineapple, which accounted for 90 percent of the county total. Revenue from other fruits was down 16 percent from the previous year, declining for the first time after seven years of consecutive increase. Bananas and papayas contributed most of the value of fruits other than pineapple.

#### KAUAI

Kauai fruit sales for 2001 decreased 20 percent from the previous year to \$3.0 million. Guavas, papayas, and tropical specialty fruits accounted for most of the value. Bananas, avocados, and citrus contributed the remainder.

#### **MAUI**

The value of fruit sales from Maui County was down 8 percent from 2000 at \$28.0 million. Pineapple accounted for 97 percent of the Maui County value. Papayas, bananas, tropical specialty fruits, and other fruits made up the rest of the value.

#### MARKET SUPPLY: Fresh market fruits, State of Hawaii, 1997-2001 12

Comr	nodity	1997³	1998³	1999	2000	2001	Hawaii market share 2001
				1,000 pounds			Percent
Apples: Avocados:	Inshipments Inshipments Hawaii	500	500	15,588 616 600	14,915 825 640	13,622 952 600	39
Bananas:	Inshipments Hawaii	13,700	21,000	8,484 NA	9,055 NA	6,321 NA	
Cantaloupe melons:	Inshipments Hawaii <sup>4</sup>			8,334	8,877	9,641	
Grapefruit: Grapes: Honeydew melons:	Inshipments Inshipments Inshipments Hawaii <sup>4</sup>			1,992 7,541 4,125	1,930 8,546 4,448	1,713 7,145 2,698	
Lemons: Limes:	Inshipments Inshipments Hawaii <sup>4</sup>			2,937 881	3,492 882	3,321 935	
Nectarines: Oranges:	Inshipments Inshipments Hawaii <sup>4</sup>			2,053 7,714	2,074 12,109	2,016 11,017	
Papayas: Pears: Pineapples: Tangerines:	Hawaii <sup>5</sup> Inshipments Hawaii Inshipments Hawaii <sup>4</sup>	13,710 33,400	14,470 42,000	18,075 4,001 46,800 1,262	24,100 3,944 34,700 856	26,355 3,423 39,800 649	
Watermelons:	Inshipments Hawaii	16,800	15,800	2,531 11,400	2,804 12,600	2,065 10,500	84
All other fruits:	Inshipments Hawaii	4,683	3,474	8,824 6,556	10,639 5,416	11,463 4,330	27
Unspecified fruits:	Inshipments <sup>6</sup>			14,000	13,000	8,366	
Total:	Inshipments Hawaii All	82,793	97,244	90,883 83,431 174,314	98,396 77,456 175,852	85,347 81,585 166,932	49

NA = Not applicable.

<sup>&</sup>lt;sup>1</sup> Excludes pineapples, guavas, papayas, and passion fruit used for processing, and quantities shipped out-of-State.

<sup>&</sup>lt;sup>2</sup> Inshipment data was provided by the Market Analysis and News Branch of the State Department of Agriculture.

<sup>&</sup>lt;sup>3</sup>Inshipment data not available.

<sup>&</sup>lt;sup>4</sup> Data not shown separately to avoid disclosure of individual operations but combined and included with "All other fruits".

<sup>&</sup>lt;sup>5</sup> Fresh intrastate sales only. Excludes mainland and foreign fresh sales.

<sup>&</sup>lt;sup>6</sup> Inshipment of "Unspecified fruits" were prorated based on the amount of known fruits imported into the State.

# TROPICAL SPECIALTY FRUIT: Number of farms, acreage, number of trees, production, price, and value, State of Hawaii, 1997-2001 <sup>1</sup>

Crop	Farms <sup>2</sup>	Acı	eage	Numbe	r of trees	Utilized	Farm price <sup>34</sup>	Value of
Сюр	rams-	In crop	Harvested	Total	Bearing	production <sup>3</sup>	Farm prices	sales
	Number	A	cres			1,000 pounds	Dollars per pound	1,000 dollars
Longan								
1997⁵								
1998 <sup>5</sup>								
1999⁵								
2000	40	40	10	2,300	500	24	4.02	94
2001	35	90	30	4,700	1,500	37	3.05	111
Lychee								
1997	70	225	75	11,000	2,900	114.3	1.81	206.4
1998	75	245	60	13,200	3,200	157.2	1.96	308.5
1999	80	275	45	12,900	3,100	86.0	2.81	242.0
2000	90	300	50	15,200	3,700	5	5	5
2001	85	305	65	16,400	4,300	5	5	5
Mango								
1997⁵								
1998 <sup>5</sup>								
1999	80	240	85	11,200	4,600	162.0	1.02	166.0
2000	105	250	100	12,000	5,500	207.0	.93	193.0
2001	70	255	185	11,100	8,200	242.0	.86	209.0
Rambutan								
1997	45	95	60	6,000	4,300	264.3	2.71	716.6
1998	50	180	70	9,800	4,700	139.2	3.03	421.5
1999	60	205	70	9,400	3,500	113.0	2.88	326.0
2000	70	225	85	9,800	5,000	220.0	2.98	656.0
<b>2001</b>	<b>60</b>	245	100	1 <b>2,500</b>	<b>6,400</b>	205.0	3.01	618.0
Specialty				•	·			
pineapple								
1997 <sup>5</sup>								
1997 <sup>6</sup>								
1999 <sup>6</sup>								
2000 <sup>6</sup>								
2000 ° 2001 <sup>6</sup>								
Starfruit								
1997	35	25	20	2,100	1,900	89.8	.46	41.4
1998	25	25 25	25	1,900	1,900	37.1	.97	36.0
1999	25 25	20	15	1,800	1,700	96.0	.66	63.0
2000	30	20	15	1,800	1,700	107.0	.64	69.0
2001	<b>40</b>	<b>20</b>	15 15	<b>2,000</b>	1,700 <b>1,900</b>	<b>69.0</b>	1.06	<b>73.0</b>
Other	.0			_,000	1,000	33.3		10.0
1997		305	85	15,000	5,100	681.1		481.3
1998		350	85	23,900	5,000	376.1		402.9
1999		170	55	8,900	3,700	189.0	 	243.0
2000		170		6,700	3,400	169.0		
2000 <b>2001</b>	<b></b>	125 <b>155</b>	50 <b>65</b>	8,700	5,400	169.0 <b>188.0</b>	<b></b>	309.0 <b>297.0</b>
∠UU I		133	00	0,900	5,100	100.0		∠91.U

# TROPICAL SPECIALTY FRUIT: Number of farms, acreage, number of trees, production, price, and value, State of Hawaii, 1997-2001 <sup>1</sup> -- Continued

Crop	Farms <sup>2</sup>	Acreage		Number of trees		Utilized	Farm price <sup>34</sup>	Value of
Сюр	i aiiiis	In crop	Harvested	Total	Bearing	production <sup>3</sup>	r ann pnce	sales
	Number	Acres				1,000 pounds	Dollars per pound	1,000 dollars
Total								
1997	120	650	240	34,100	14,200	1,149.5		1,445.7
1998	130	800	240	48,800	14,800	709.6		1,168.9
1999	140	910	270	44,200	16,600	646.0		1,040.0
2000	145	960	310	47,800	19,800	727.0		1,321.0
2001	145	1,070	460	55,600	27,400	741.0		1,308.0

<sup>-- =</sup> Not applicable. <sup>1</sup> Tropical specialty fruits include: abiu, atemoya, breadfruit, caimito, canistel, cherimoya, durian, jaboticaba, jackfruit, langsat, longan, loquat, lychee, mango, mangosteen, persimmon, poha, rambutan, rollina, sapodilla, soursop, specialty pineapple, starfruit, white sapote, and other fruits. If not shown separately, then combined and included in "Other" category. <sup>2</sup> A farm may grow more than one type of fruit. Total farms is an unduplicated count; excludes home use. <sup>3</sup> Includes fresh and processed utilization when applicable. <sup>4</sup> Beginning 2001, price shown reflects average prices received as sold by farmers (loose, packed, etc.), excluding any value added through processing. Prior to 2001, prices for fresh sales were adjusted to prepacked equivalent. <sup>5</sup> Data not shown separately to avoid disclosure of individual operations but combined and included with "Other". <sup>6</sup> Specialty pineapple will be discontinued but included in all pineapple totals on page 41.

# TROPICAL SPECIALTY FRUIT: Number of farms, acreage, production, and value, by counties, 1997-2001

		Dy Cou.	1.1.00, 1.001 2001			
Island	Farms	Ad	creage	Utilized	Value of sales	
ISIAHU	raiiiis	In crop	Harvested	production 1	value of sales	
	Number	/	Acres	1,000 pounds	1,000 dollars	
State						
1997	120	650	240	1,149.5	1,445.7	
1998²	130	800	240	709.6	1,168.9	
1999	140	910	270	646.0	1,040.0	
2000	145	960	310	727.0	1,321.0	
2001	145	1,070	460	741.0	1,308.0	
Counties:						
Hawaii						
1997	80	290	<b>95</b>	3	3	
1998	80	315	3	3	3	
1999	85	375	110	256.0	397.0	
2000	85	405	135	329.0	651.0	
2001	80	515	180	351.0	736.0	
Honolulu/Kauai/I	Maui⁴					
1997	40	360	145	3	3	
1998	50	485	3	3	3	
1999	55	535	160	390.0	643.0	
2000	60	555	175	398.0	670.0	
2001	65	555	280	390.0	572.0	

<sup>&</sup>lt;sup>1</sup> Includes fresh and processed utilization when applicable.

<sup>&</sup>lt;sup>2</sup> Specialty pineapple excluded beginning 1998.

<sup>&</sup>lt;sup>3</sup> Data not shown separately to avoid disclosure of individual operations but combined and included in the State total.

<sup>&</sup>lt;sup>4</sup> Kauai and Maui combined with Honolulu to avoid disclosure of individual operations.

PINEAPPLES: Number of farms, acreage, production, disposition, price, and value, State of Hawaii, 1997-2001 <sup>1</sup>

			Production	Dispos	ition	Farm p	Value of	
Year	Farms	used for crop	, , , , , , , , , , , , , , , , , , , ,		Fresh market	Processed <sup>2</sup>	Fresh market <sup>3</sup>	production (fresh weight)
	Number	1,000 acres	1,000 tons			Dollars pe	1,000 dollars	
1997	15	19.9	324	221	103	127	618	91,721
1998	15	21.0	332	221	111	131	575	92,776
1999	15	21.0	352	230	122	126	594	101,448
2000	15	20.7	354	232	122	130	585	101,530
2001	15	20.1	323	213	110	129	626	96,337

<sup>&</sup>lt;sup>1</sup> Includes specialty pineapple.

# PINEAPPLES: Fresh market sales, processed value, and total value, State of Hawaii, 1997-2001

Year	Fresh mai	rket sales	Processor value of canned fruit	Total value: Fresh market
i eai	Quantity 1	Value <sup>2</sup>	and juice production <sup>3</sup>	and processed <sup>4</sup>
	1,000 tons		Million dollars	
1997	103	63.7	73.0	136.7
1998	111	63.8	81.3	145.1
1999	122	72.5	72.3	144.8
2000	122	71.4	60.8	132.2
2001	110	68.9	67.7	136.6

<sup>&</sup>lt;sup>1</sup> Market Analysis and News Branch of the State Department of Agriculture. Includes all destinations.

#### PINEAPPLES: Outshipments of fresh pineapples, State of Hawaii, 1997-2001

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
	1,000 pounds												
1997	12,892	12,771	18,014	12,686	15,916	15,403	19,096	11,882	12,919	14,609	12,647	13,765	172,600
1998	12,109	11,237	17,451	13,841	13,248	14,618	18,926	16,245	12,498	16,518	15,532	17,695	179,918
1999	13,564	12,237	18,052	16,603	18,477	18,805	20,645	13,305	15,929	16,490	17,700	15,388	197,195
2000	14,692	14,022	18,769	21,214	21,773	22,782	17,877	17,040	13,197	16,451	16,718	14,806	209,341
2001	13,864	13,519	16,254	16,276	19,480	17,541	18,073	14,212	9,901	12,671	12,307	16,058	180,156

Source of outshipment data: Market Analysis and News Branch of the State Department of Agriculture.

<sup>&</sup>lt;sup>2</sup> Estimate to reflect value of fresh fruit delivered processing plant door based on average contract prices of independent growers.

<sup>&</sup>lt;sup>3</sup> Estimate to reflect value at wholesale establishments for local sales and shipper dock for mainland and foreign sales.

<sup>&</sup>lt;sup>2</sup> Value FAS shipping point for outshipments, delivered wholesalers local sales.

<sup>&</sup>lt;sup>3</sup> Value of canned fruit and juices and by-product shipped out-of-State and sold within State.

<sup>&</sup>lt;sup>4</sup> Pineapple Growers Association of Hawaii.

# AVOCADOS: Number of farms, acreage, yield, production, price, and value, State of Hawaii, 1997-2001

Voor	Year Farms		age 1	Yield per acre <sup>2</sup>	Production	Form price	Value of
T ear	Farms	In crop Bearing Floor	Production	Farm price	sales		
	Number	Ac	cres	1,000 po	ounds	Cents per pound	1,000 dollars
1997	95	340	250	2.0	500	53.0	265
1998	95	330	240	2.1	500	52.0	260
1999	120	360	230	2.6	600	60.0	360
2000	130	360	220	2.9	640	58.0	371
2001	140	360	230	2.6	600	57.0	342

<sup>&</sup>lt;sup>1</sup> At end of year.

BANANAS: Distribution of harvested acreage by yield, State of Hawaii, 2000-2001

_	Variety												
Stratum:		Hawai	i Apple <sup>1</sup>			Cavendish	Cavendish and others <sup>2</sup>						
Yield per harvested acre	Harvest	ed acres	Averag	je yield	Harvest	ed acres	Average yield						
	2000	2001	2000	2001	2000	2001	2000	2001					
Pounds			Pounds										
Over 30,000	3	3	3	3	481	150	31,500	30,700					
20,001 - 30,000	<sup>4</sup> 41	⁴116	424,000	425,000	343	677	21,400	24,000					
10,001 - 20,000	193	135	15,200	14,400	54	26	15,500	12,100					
10,000 and Under	316	349	5,500	5,400	32	37	4,800	3,600					
Overall Average Yield	550	600	10,000	11,200	910	890	25,800	23,900					

<sup>&</sup>lt;sup>1</sup> Includes Dwarf Hawaii Apple and Apple bananas, formerly called Brazilian.

<sup>&</sup>lt;sup>2</sup> Production divided by bearing acreage.

<sup>&</sup>lt;sup>2</sup> Includes Chinese, Williams, Valery, Grand Nain, Bluefields, Dwarf Bluefields, and other bananas. Previous publications provide a breakdown for Bluefields.

<sup>&</sup>lt;sup>3</sup> Data not shown separately but combined and included in "20,001-30,000" pounds per acre.

<sup>&</sup>lt;sup>4</sup>Includes "Over 30,000" pounds per acre.

BANANAS: Number of farms, acreage, yield, production, price, and value, by counties, 1997-2001

Voor	Forms	Ac	reage	Yield per	Utilized	Form prior	Value of
Year	Farms	In crop 1	Harvested <sup>2</sup>	acre <sup>3</sup>	production	Farm price	sales
	Number	,	Acres	1,000 µ	oounds	Cents per pound	1,000 dollars
State 4							
1997	170	1,590	950	14.4	13,700	38.0	5,206
1998	200	1,600	1,420	14.8	21,000	35.0	7,350
1999	210	1,760	1,420	17.3	24,500	35.0	8,575
2000	210	1,710	1,460	19.9	29,000	36.0	10,440
2001	200	1,660	1,490	18.8	28,000	38.0	10,640
Counties:							
Hawaii							
1997	48	840	550	17.8	9,800	34.0	3,352
1998	50	740	665	16.7	11,100	31.0	3,430
1999	45	830	650	18.2	11,800	32.5	3,819
2000	45	815	665	21.4	14,200	34.5	4,927
2001	50	790	730	23.0	16,800	37.5	6,302
Honoluli	J						
1997	75	635	320	8.6	2,750	46.5	1,276
1998	75	715	655	13.1	8,600	38.0	3,268
1999	85	785	670	16.9	11,300	35.5	4,039
2000	80	760	685	19.7	13,500	35.5	4,826
2001	75	710	645	15.7	10,100	37.5	3,768
Kauai							
1997	28	40	35	12.9	450	43.5	196
1998	40	60	50	10.0	500	42.5	212
1999	40	60	50	10.2	510	42.5	218
2000	45	60	50	11.0	550	43.0	236
2001	45	75	55	9.5	520	45.5	237
Maui							
1997	19	75	45	15.6	700	54.5	382
1998	35	85	50	16.0	800	55.0	440
1999	40	85	50	17.8	890	56.0	499
2000	40	75	60	12.5	750	60.0	451
2001	30	85	60	9.7	580	57.5	333

<sup>&</sup>lt;sup>1</sup> As of February following year, i.e., acreage data shown for 2001 is as of February 1, 2002. <sup>2</sup> Acreage reflects quarterly average during the year. <sup>3</sup> Utilized production divided by acreage harvested.

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<sup>&</sup>lt;sup>4</sup> Sum of county estimates may not add to State total due to rounding.

<b>BANANAS: Production</b>	n, acreage, and price,	. State of Hawaii.	. 1997-2001
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BANANAS: Production, acreage, and price, State of Hawaii, 1997-2001															
						Fre	sh utiliz	ation 1						Α	creage
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average	In crop	Harvested
							1,000 pou	ınds							Acres
	nanas														
	1,021	840	764	802						1,432			13,700	1,590	950
1998 1999		1,096 1,743	1,261 1,968	1,359 1 714		2,090				2,095		2,079 1,965	21,000 24,500	1,600 1,760	1,420 1,420
2000	,	2,221											29,000	1,710	1,460
		2,025											28,000	1,660	1,490
Hawai	i Apple	e <sup>2</sup>													
1997	369	327	342	303	311	279	303	364	326	364	349	363	4,000	540	445
1998	344	345	388	367	308	281	322	367	385	390	397	506	4,400	660	510
1999	487	442	418	392	398	402	360	386	390	429	403	393	4,900	700	530
2000	410	438	496	479	407	447	440	445	454	458	518	508	5,500	735	550
2001	425	495	615	565	635	630	560	590	565	565	475	580	6,700	760	600
		nd Oth	ers³												
1997	652	513	422	499	679	839				1,068	1,016	994	9,700	1,050	505
1998	852	751	873		1,208		1,841				1,666	1,573	16,600	940	910
1999 2000	1,252	1,301 1,783	1,550	1,322	1,726		1,963			1,722	1,417	1,572	19,600 23,500	1,060 975	890 910
<b>2000</b>		1,530											<b>23,300</b>	900	<b>890</b>
						Fa			esh mai	rket					
ΔII Ra	nanas'	4					Ce	nts per p	ouna						
1997	44.0	44.5	45.0	43.0	38.0	36.0	34.5	35.5	36.0	35.5	34.5	34.5	38.0		
1998	36.0	38.5	37.5	38.0	37.5	35.5	34.5	33.5	33.0	32.5	33.5	34.5	35.0		
1999	37.0	38.5	38.0	37.5	35.0	33.5	32.5	33.0	33.0	33.5	36.5	35.0	35.0		
2000	36.0	38.5	37.5	39.0	37.5	34.5	33.0	32.0	33.0	36.5	36.5	38.0	36.0		
2001	38.5	42.0	40.0	38.0	40.5	37.5	37.0	36.0	36.0	36.0	35.0	39.5	38.0		
Hawai	i Apple	e <sup>2</sup>													
1997	48.5	49.5	49.5	50.0	50.5	52.0	51.5	51.0	51.0	50.0	50.0	49.5	50.0		
1998	49.5	49.5	49.0	49.0	50.0	53.0	53.0	51.0	50.5	50.0	49.5	48.5	50.0		
1999	48.0	47.5	47.0	47.0	47.5	47.5	47.5	48.0	47.5	47.5	48.0	48.0	47.5		
2000 <b>2001</b>	46.5 <b>50.0</b>	46.5 <b>50.0</b>	46.0 <b>51.0</b>	47.5 <b>51.0</b>	47.0 <b>51.5</b>	47.0 <b>50.5</b>	47.0 <b>50.0</b>	47.5 <b>50.5</b>	47.5 <b>51.0</b>	47.0 <b>51.0</b>	46.5 <b>50.0</b>	47.5 <b>50.0</b>	47.0 <b>50.5</b>		
_001	50.0	50.0	01.0	01.0	01.0	50.5	50.0	50.5	01.0	J 1.0	50.0	50.0	50.5		
Caven	dish <sup>5</sup>														
1997	38.0	41.5	42.0	42.0	38.5	32.0	30.5	29.5	30.0	30.0	30.0	29.0	33.0		
1998	30.0	33.5	32.5	33.5	34.0	32.5	31.0	29.5	28.5	28.5	29.5	30.0	30.5		
1999	32.5	35.0	35.5	34.5	31.5	30.0	29.5	30.0	30.0	29.5	33.0	31.5	31.5		
2000 <b>2001</b>	33.5 <b>36.0</b>	36.0 <b>39.0</b>	35.5 <b>36.0</b>	36.5 <b>34.0</b>	35.5 <b>36.5</b>	31.5 <b>33.5</b>	30.0 <b>33.0</b>	28.0 <b>32.0</b>	30.0 <b>31.5</b>	34.0 <b>31.5</b>	34.0 <b>30.5</b>	34.5 <b>35.5</b>	33.0 <b>34.0</b>		

<sup>&</sup>lt;sup>1</sup>Monthly production rounded to the nearest 5,000 pounds beginning 2001. <sup>2</sup>Includes Dwarf Hawaii Apple and Apple bananas, formerly called Brazilian. <sup>3</sup>Includes Chinese, Williams, Valery, Grand Nain, Bluefields, Dwarf Bluefields, and other bananas. Previous publications provide a breakdown for Bluefields. <sup>4</sup>Includes Bluefields, Dwarf Bluefields, and other bananas. <sup>5</sup>Includes Chinese, Williams, Valery, and Grand Nain.

PAPAYAS: Number of farms, acreage, yield, utilization, price, and value, by counties, 1997-2001 1

Year	Farms <sup>2</sup>	Acı	reage <sup>2</sup>	Yield per	Utilized produc-	Utili	ization	P	rice per pound	t	Value of utilized
I eai	Faiiis	In crop	Harvested	acre <sup>3</sup>	tion	Fresh	Processed	Fresh	Processed 4	All	production
	Number		Acres		1,00	00 pounds			Cents		1,000 dollars
State											
1997	241	4,055	1,985	19.5	38,800	35,700	3,100	52.9	3.0	48.9	18,978
1998	262	3,555	2,120	18.8	39,900	35,600	4,300	35.0	3.0	31.6	12,589
1999	222	3,500	1,940	21.9	42,400	39,400	3,000	40.2	3.0	37.6	15,929
2000	236	2,845	1,650	33.0	54,500	50,250	4,250	31.6	3.0	29.4	16,007
2001	221	2,860	1,950	28.2	55,000	52,000	3,000	27.9	3.0	26.5	14,598
Countie											
Hawai											
1997	200	3,385	1,615	19.1	30,910	27,810	⁵ 3,100	51.8		46.9	14,501
1998	208	2,715	1,640	18.9	31,050	26,750	<sup>5</sup> 4,300	31.1		27.2	8,439
1999	168	2,595	1,415	20.1	28,455	25,455	<sup>5</sup> 3,000	36.3		32.8	9,327
2000	174	2,005	1,130	33.8	38,200	33,950	<sup>5</sup> 4,250	29.7		26.8	10,223
2001	158	2,385	1,635	26.5	43,290	40,290	<sup>5</sup> 3,000	25.1		23.6	10,216
Honol	ulu										
1997	20	425	255	22.3	5,695	5,695	0	59.4		59.4	3,383
1998	23	525	300	18.3	5,485	5,485	0	55.1		55.1	3,022
1999	22	550	335	24.7	8,265	8,265	0	52.3		52.3	4,322
2000	34	510	335	34.4	11,515	11,515	0	34.7		34.7	3,996
2001	29	330	<b>225</b>	41.9	9,425	9,425	Ŏ	38.3		38.3	3,613
Kauai											
<b>Kauai</b> 1997	47	405	00	40.0	4 000	4 000	5	<sup>6</sup> 49.8		<sup>6</sup> 49.8	<sup>6</sup> 1,094
	17	185	80	16.0	1,280	1,280	5	6 33.5		633.5	<sup>6</sup> 1,128
1998	21	245	135	15.3	2,065	2,065	5	6 40.1		640.1	
1999	22	285	145	32.8	4,760	4,760	5	6 37.4		6 37.4	<sup>6</sup> 2,280
2000	23	275	160	24.7	3,945	3,945	5				<sup>6</sup> 1,788
2001	24	105	70	24.2	1,695	1,695		<sup>6</sup> 33.7		<sup>6</sup> 33.7	<sup>6</sup> 769
Maui											
1997	4	60	35	26.1	915	915	0	6		6	6
1998	10	70	45	28.9	1,300	1,300	0	6		6	6
1999	10	70	45	20.4	920	920	0	6		6	6
2000	5	55	25	33.6	840	840	0	6		6	6
2001	10	40	20	29.5	590	590	0	6		6	6

<sup>&</sup>lt;sup>1</sup> Sum of county estimates may not add to State total due to rounding.

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<sup>&</sup>lt;sup>2</sup> Average of monthly estimates.

<sup>&</sup>lt;sup>3</sup> Utilized production divided by acreage harvested.

<sup>&</sup>lt;sup>4</sup> Data not shown separately to avoid disclosure of individual operations but combined and included in the State total.

<sup>&</sup>lt;sup>5</sup> Kauai combined with Hawaii to avoid disclosure of individual operations.

<sup>&</sup>lt;sup>6</sup> Maui combined with Kauai to avoid disclosure of individual operations.

PA	PAPAYAS: Acreage, utilization, outshipments, and price, State of Hawaii, 1997-2001												
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
Harvested	d acres 1												
1997	1,500	1,485	2,115	2,120	2,125	2,255	2,325	2,350	1,955	1,955	1,920	1,715	1,985
1998	1,735	1,740	1,750	1,775	2,175	2,460	2,440	2,420	2,310	2,240	2,215	2,185	2,120
1999	2,190	2,135	2,100	2,145	2,155	2,025	2,035	2,025	1,615	1,620	1,605	1,635	1,940
2000	1,635	1,675	1,655	1,655	1,670	1,585	1,330	1,610	1,725	1,690	1,695	1,875	1,650
2001	1,870	1,845	2,025	2,025	2,025	2,035	2,020	1,955	1,940	1,920	1,920	1,825	1,950
Utilization	n (fresh	and pro	cessed	<b>) -</b> 1.000	pounds	•							
1997	3,535	3,075	3,005	2,835	2,945	3,045	3,110	2,905	3,330	3,870	3,480	3,665	38,800
1998	3,395	2,910	2,995	3,605	3,790	3,160	3,620	3,420	2,770	3,200	3,335	3,700	39,900
1999	3,310	3,155	3,315	3,475	3,655	3,440	3,490	3,705	3,695	3,835	3,785	3,540	42,400
2000	3,310	3,575	4,655	5,185	5,325	5,245	5,375	4,445	3,510	4,290	4,585	5,000	54,500
2001	5,065	4,045	4,670	4,740	5,150	5,230	4,370	4,325	4,390	5,185	4,435	3,395	55,000
Total fres	h nanav	a utiliza	ntion - 1	000 por	ınds								
1997	3,425	3,020	2,915	2,720	2,730	2,760	2,845	2,705	2,990	3,415	3,030	3,145	35,700
1998	2,875	2,655	2,845	3,375	2,995	2,685	3,095	2,785	2,495	3,165	3,250	3,380	35,600
1999	2,975	2,985	3,155	3,260	3,365	3,215	3,225	3,315	3,480	3,520	3,565	3,340	39,400
2000	3,175	3,440	4,610	4,700	4,625	4,425	4,665	3,860	3,355	4,255	4,430	4,710	50,250
2001	4,930	4,040	4,600	4,380	4,530	4,745	3,985	4,190	4,105	4,940	4,330	3,225	52,000
Intrastate	fresh p	anava u	tilizatio	<b>n -</b> 1 000	0 pound.	S							
1997	1,335	1,290	1,195	930	1,005	980	935	1,100	1,145	1,450	1,260	1,085	13,710
1998	1,020	1,130	1,025	1,310	1,160	945	1,210	1,155	1,040	1,415	1,499	1,561	14,470
1999	1,405	1,390	1,305	1,500	1,645	1,410	1,385	1,475	1,610	1,695	1,720	1,535	18,075
2000	1,560	1,730	2,255	2,185	2,060	1,880	1,925	1,835	1,685	2,170	2,465	2,350	24,100
2001	2,890	2,120	2,425	1,955	1,870	2,320	1,845	2,125	2,215	2,325	2,345	1,920	26,355
Outshipm	onts of	frash n	anavae .	- 1 000 r	nounds								
1997	2,090	1,730	1,720	1,790	1,725	1,780	1,910	1,605	1,845	1,965	1,770	2,060	21,990
1998	1,855	1,730	1,720	2,065	1,725	1,740	1,885	1,630	1,455	1,750	1,770	1,819	21,330
1999				1,760							1,845	,	21,325
2000	1,615			2,515						2,085	1,965	2,360	26,150
2001	2,040			2,425						2,615	1,985	1,305	25,645
Form nric	a far fra	ob mor	rot colo	o (to oli	market	<b>a)</b> oost	o nor no	und					
Farm pric				-		-			47.0	22.7	244	22.0	E2 0
1997	39.8	42.2	63.9	93.4	89.4	68.4	54.1	51.3	47.0	33.7	34.1	32.0	52.9 35.0
1998	31.6	38.9	50.2	43.2	33.4	40.4	36.5	31.8	35.9	30.0	23.8	26.8	35.0
1999 2000	29.5 44.9	35.5 44.8	41.1 38.8	44.2 39.6	44.7 26.7	44.3 25.7	43.7 36.3	44.4 34.5	39.9 30.2	37.0 22.7	35.1 21.0	42.7 21.0	40.2 31.6
<b>2000</b>	<b>23.8</b>	<b>26.9</b>	<b>30.0</b>	<b>31.7</b>	28.3	28.5	<b>30.0</b>	<b>27.7</b>	<b>27.3</b>	26.0	<b>26.5</b>	<b>28.9</b>	<b>27.9</b>

<sup>1</sup>Total is average of monthly data.

GUAVAS: Number of farms, acreage, farm production, price, and value, by counties, 1997-2001

			Farm pr	oduction		
Year	Farms		reage	Utilized	Farm	Value of
	Tanno	In crop <sup>1</sup>	Harvested	Production	price <sup>2</sup>	sales
	No. mada a m		A	1,000	Cents per	1,000
	Number	/	Acres	pounds	pound	dollars
State						
1997	130	900	730	15,900	12.2	1,940
1998	125	890	710	14,600	12.2	1,781
1999	130	870	630	10,700	12.0	1,284
2000	130	800	680	15,900	12.9	2,051
2001	110	710	610	15,300	14.1	2,157
Counties:						
Hawaii						
1997	125	440	350	6,400	12.2	781
1998	120	430	320	7,100	12.2	866
1999	125	430	240		3	3
2000	120	340	240	3 <b>3</b>	3 <b>3</b>	3 <b>3</b>
2001	100	260	170	3	3	3
Honolulu/K	auai/Maui ⁴					
1997	5	460	380	9,500	12.2	1,159
1998	5	460	390	7,500	12.2	915
1999	5	440	390	3	3	3
2000	10	460	440	3	3	3
2001	10	450	440	3	3	3

#### GUAVAS: Farm production, State of Hawaii, 1997-2001

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
							1,000 poui	nds					
1997	123	667	913	552	763	1,270	1,150	1,607	3,559	2,565	1,164	1,567	15,900
1998	971	658	900	809	679	504	855	1,150	1,849	3,154	1,912	1,159	14,600
1999	487	286	819	480	279	491	633	735	1,468	2,216	1,962	844	10,700
2000	963	905	1,011	494	855	681	805	862	1,085	3,092	3,065	2,082	15,900
2001	1,434	501	363	646	1,032	1,041	1,244	1,385	2,236	1,761	2,298	1,359	15,300

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<sup>&</sup>lt;sup>1</sup> Includes planting intentions.
<sup>2</sup> State average grower price. Equivalent F.O.B. plant, county of production.

<sup>&</sup>lt;sup>3</sup> Data not shown separately to avoid disclosure of individual operations but combined and included in the State total. <sup>4</sup> Kauai and Maui combined with Honolulu to avoid disclosure of individual operations.

#### 2001 VEGETABLE, MELON, AND TARO HIGHLIGHTS

#### **VEGETABLES AND MELONS**

Farm value of vegetables and melons was estimated at a record high \$48.0 million in 2001, up 7 percent from 2000. Farm production declined 2 percent to 94.6 million pounds.

Leading all individual vegetables and melons in farm value were tomato growers with a record high \$9.3 million in 2001, up 8 percent from 2000. A 26 percent increase in production and a 6 percent increase in the average farm price enabled dry onion growers to move into second with a record \$4.1 million in revenues, up 33 percent from 2000.



Tomatoes (field-grown and greenhouse combined) also led all individual vegetables and melons for the third consecutive year in production with a record-high harvest of 17.5 million pounds in 2001, up 6 percent from 2000. Head cabbage was a distant second with production estimated at 12.5 million pounds, down 14 percent from 2000.

The combined category of "Other Vegetables and Melons" made significant gains in both farm revenues and production. Farm value was estimated at \$11.9 million for 2001, up 31 percent from the previous year. Production was at a record-high 12.3 million pounds, up 16 percent from 2000. This category contains more than 70 different kinds of vegetables and melons including such high-value crops as sprouts, strawberries, organic vegetables, baby vegetables, ethnic vegetables, and specialty salad mix greens.

#### TARO

Hawaii taro production is estimated at 6.4 million pounds for 2001, down 9 percent from 2000. The combined farm price for poi and Chinese taro averaged 53 cents per pound in 2001, unchanged for the fourth consecutive year. Farm revenues totaled \$3.4 million, down 9 percent from 2000.

Taro for processing totaled 6.2 million pounds in 2001, down 9 percent from 2000 and the first decline in four years. Total acreage in poi taro is estimated at 420 acres in 2001, down 2 percent from 2000. All the reduction in acreage occurred on the Big Island which saw poi taro acreage fall from 80 acres in 2000 to 70 acres in 2001. Farm prices for poi taro averaged 53.2 cents per pound in 2001, down slightly from the record high 53.3 cents per pound average of 2000.

Statewide acreage in Chinese taro declined to 20 acres, down 50 percent from 2000 and the lowest total in 17 years. A steady decline in Chinese taro acreage started in 1996 due to persistent problems with taro root aphids, dry weather, and relatively low prices.

## MARKET SUPPLY: FRESH VEGETABLES

MARKET SUPPLY: Fresh market vegetables, State of Hawaii, 1997-2001 <sup>1</sup>

Com	modity	1997²	1998²	1999	2000	2001	Hawaii market share 2001
				- 1,000 pounds			Percent
Beans, snap:	Inshipments Hawaii	700	900	185 1,000	591 1,200	285 1,100	79
Bittermelon:	Inshipments Hawaii	180	350	53 550	53 300	31 250	89
Broccoli:	Inshipments Hawaii	450	350	5,943 300	5,285 400	4,822 550	10
Burdock:	Inshipments Hawaii	220	200	41 250	41 180	38 150	80
Cabbage, Chinese:	Inshipments Hawaii ³	6,500	6,700	114 6,400	281 6,200	178 6,000	97
Cabbage, head:	Inshipments Hawaii	13,000	15,300	498 14,300	899 14,600	1,151 12,500	92
Cabbage, mustard:	Inshipments Hawaii	1,500	1,500	93 1,600	72 1,500	112 1,600	93
Carrots:	Inshipments Hawaii <sup>4</sup>			11,667	12,505	11,550	
Cauliflower:	Inshipments Hawaii	200	130	1451 4	1,337	<b>1,171</b>	
Celery:	Inshipments Hawaii	1,250	1,300	5,022 1,300	5,259 1,100	4,961 1,150	19
Corn, sweet:	Inshipments Hawaii	1,300	1,100	1,648 1,700	1,271 2,400	966 1,900	66
Cucumbers:	Inshipments Hawaii	5,500	6,000	721 5,800	729 5,700	282 5,300	95
Daikon:	Inshipments Hawaii <sup>3</sup>	2,600	2,450	 2,300	4 2,750	 2,800	
Dasheen:	Inshipments Hawaii	95	4	48	4 87	<b>74</b>	
Eggplant:	Inshipments Hawaii	1,500	1,300	445 1,500	489 1,200	211 1,000	83
Ginger root:	Inshipments Hawaii	12,100	18,000	286 16,100	155 13,500	6 18,000	100
_ettuce⁵:	Inshipments Hawaii	1,600	1,700	12,719 1,500	13,728 1,300	11,366 1,200	10
_otus root:	Inshipments Hawaii <sup>4</sup>	·	•	50	51	40	-
Onions, dry:	Inshipments Hawaii	1,700	3,500	16,093 3,400	16,460 4,300	17,752 5,400	23
See footnotes at end of	of table.						Continue

MARKET SUPPLY: Fresh market vegetables, State of Hawaii, 1997-2001 1 -- Continued

Comi	modity	1997²	1998²	1999	2000	2001	Hawaii market share 2001
				- 1,000 pounds -			Percent
Onions, green:	Inshipments Hawaii	1,400	1,500	170 1,700	263 1,500	240 1,400	85
Parsley, American:	Inshipments Hawaii	200	125	25 190	17 220	26 330	93
Peas, Chinese:	Inshipments Hawaii	25	4	381	344	<sub>4</sub> 335	
Peppers, green:	Inshipments Hawaii	2,000	3,000	1,804 3,000	1,948 2,800	1,910 3,100	62
Potatoes:	Inshipments <sup>6</sup> Hawaii <sup>4</sup>			35,702	40,474	40,132	
Potatoes, sweet:	Inshipments Hawaii	2,400	1,900	1,239 2,900	1,366 2,500	1,551 1,800	54
Pumpkins:	Inshipments Hawaii	450	550	1,144 450	1,426 170	393 400	50
Radish:	Inshipments Hawaii	160	150	 130	6 100	1 150	99
Romaine:	Inshipments Hawaii	1,900	3,300	5,023 2,700	6,337 2,000	6,412 2,000	24
Squash, Italian:	Inshipments Hawaii	1,400	1,500	979 1,900	1,188 2,200	847 1,800	68
Squash, oriental:	Inshipments Hawaii	300	240	 600	4 600	2 500	100
Taro:	Inshipments Hawaii ³	400	300	1,491 300	1,293 200	1,200 200	14
Tomatoes:	Inshipments Hawaii	10,200	10,200	3,973 16,800	3,340 16,500	2,995 17,500	85
Watercress:	Inshipments Hawaii	1,020	980	10 970	10 970	51 860	94
All other vegetables:	Inshipments Hawaii	11,300	10,401	18,856 12,710	20,937 10,980	16,329 11,470	41
Unspecified vegetables:	Inshipments <sup>7</sup>			23,000	21,000	14,000	
Total:	Inshipments Hawaii All	83,550	94,926	150,874 102,350 253,224	159,250 97,370 256,620	141,420 100,410 241,830	42

<sup>-- =</sup> Negligible.

<sup>&</sup>lt;sup>1</sup> Inshipment data was provided by the Market Analysis and News Branch of the State Department of Agriculture.

<sup>&</sup>lt;sup>2</sup>Inshipment data not available.

<sup>&</sup>lt;sup>3</sup> Fresh market only.

<sup>&</sup>lt;sup>4</sup>Data not shown separately to avoid disclosure of individual operations but combined and included with "All other vegetables".

<sup>&</sup>lt;sup>5</sup> Processed lettuce, both local production and inshipments, are included in "All other vegetables".

<sup>&</sup>lt;sup>6</sup> For processing and fresh market.

<sup>&</sup>lt;sup>7</sup> Inshipment of "Unspecified vegetables" were prorated based on the amount of known vegetables imported into the State.

SNAP BEANS: Acreage, yield, production, price, and value, by counties, 1997-2001

Year	Harvested acres	Yield per acre	Production	Farm price	Value of sales
		1,000 po	unds	Cents per pound	1,000 dollars
State 1					
1997	130	5.4	700	99.0	693
1998	200	4.5	900	82.0	738
1999	200	5.0	1,000	88.0	880
2000	210	5.7	1,200	91.0	1,092
2001	210	5.2	1,100	97.0	1,067
Counties:					
Hawaii/Kaua	ai <sup>2</sup>				
1997	70	3.1	220	92.0	202
1998	85	2.9	250	80.0	200
1999	85	3.2	270	84.2	227
2000	75	4.7	350	94.4	330
2001	75	3.2	240	91.1	219
Honolulu					
1997	15	8.7	130	101.5	132
1998	20	7.5	150	81.0	122
1999	25	6.4	160	98.0	157
2000	65	4.6	300	98.0	294
2001	80	4.5	360	104.3	375
Maui					
1997	45	7.8	350	102.5	359
1998	95	5.3	500	83.2	416
1999	90	6.3	570	87.0	496
2000	70	7.9	550	85.0	468
2001	55	9.1	500	94.6	473

<sup>&</sup>lt;sup>1</sup> Sum of county estimates may not add to State total due to rounding.

#### SNAP BEANS: Acreage, production, and price, State of Hawaii, 1997-2001

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
Harvested	d acres 1												
1997	10	12	16	12	9	14	14	12	12	11	17	18	130
1998	14	13	19	21	21	21	15	15	17	21	20	17	200
1999	18	19	17	17	18	22	20	17	18	18	20	17	200
2000	17	26	22	25	20	19	15	13	15	18	14	17	210
2001	14	18	17	25	18	19	15	19	15	16	19	15	210
Productio	n - 1,000 p	oounds											
1997	26	48	49	71	54	69	69	59	67	59	65	64	700
1998	52	73	119	72	84	75	70	98	73	66	72	46	900
1999	72	66	89	73	94	88	78	65	98	97	103	77	1,000
2000	107	104	111	105	117	110	106	101	87	83	80	89	1,200
2001	97	73	97	131	101	82	103	109	83	70	79	75	1,100
Farm pric	e - cents p	er pound											
1997	112.6	126.4	117.2	109.4	96.2	81.5	78.1	79.2	96.2	100.7	103.7	106.5	99.0
1998	112.8	85.8	74.9	76.8	86.4	75.1	67.5	57.4	86.9	91.5	86.6	115.9	82.0
1999	100.2	103.6	93.4	101.1	84.0	66.2	77.8	85.6	83.4	80.7	87.3	102.3	88.0
2000	162.3	90.5	72.1	80.1	73.1	71.1	72.1	78.0	89.4	98.7	111.5	103.9	91.0
2001	104.8	108.2	100.5	83.3	74.4	87.1	94.7	99.7	102.9	102.7	104.7	116.1	97.0

<sup>&</sup>lt;sup>1</sup> Sum of monthly data exceeds total because harvest period longer than 1 month.

<sup>&</sup>lt;sup>2</sup>Kauai combined with Hawaii to avoid disclosure of individual operations.

## CHINESE CABBAGE: Acreage, yield, production, price, and value, by counties, 1997-2001

		- · · · · ·	· •		
Year	Harvested acres	Yield per acre	Production	Farm price	Value of sales
		1,000 pc	ounds	Cents per pound	1,000 dollars
State 1					
1997	390	19.7	7,700	23.0	1,771
1998	380	20.8	7,900	19.0	1,501
1999	330	22.7	7,500	19.0	1,425
2000	320	22.5	7,200	21.0	1,512
2001	320	21.9	7,000	23.0	1,610
Counties:					
Hawaii					
1997	270	20.0	5,400	23.0	1,242
1998	270	20.7	5,600	19.0	1,064
1999	220	23.2	5,100	19.0	969
2000	225	22.2	5,000	20.7	1,035
2001	210	23.8	5,000	22.8	1,140
Honolulu/Ka	auai/Maui <sup>2</sup>				
1997	120	19.2	2,300	23.0	529
1998	110	20.9	2,300	19.0	437
1999	110	21.8	2,400	19.0	456
2000	95	23.2	2,200	21.7	477
2001	110	18.2	2,000	23.5	470

<sup>&</sup>lt;sup>1</sup> Sum of county estimates may not add to State total due to rounding.

## CHINESE CABBAGE: Acreage, production, and price, State of Hawaii, 1997-2001

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
Harvested	l acres												
1997	29	33	37	34	35	30	32	31	34	31	37	27	390
1998	34	39	35	31	32	29	33	28	32	32	28	27	380
1999	30	33	29	29	29	27	30	26	26	21	22	28	330
2000	27	28	28	26	25	28	24	26	26	28	25	29	320
2001	23	24	25	25	28	26	25	19	28	31	35	31	320
Processin	•												
	<b>on</b> - 1,000	•											
1997	578	664	738	794	747	575	571	569	515	599	714	636	7,700
1998	752	781	608	704	714	576	700	578	632	649	624	582	7,900
1999	623	676	595	551	610	600	668	614	628	651	696	588	7,500
2000	760	608	640	644	630	544	533	590	653	574	454	570	7,200
2001	605	533	765	650	741	556	541	446	418	557	609	579	7,000
Farm pri	ce - cents	per pound											
1997	32.5	28.2	17.8	17.0	16.7	16.9	23.2	23.1	28.0	30.4	26.7	20.5	23.0
1998	23.7	17.7	15.6	16.7	15.7	16.2	19.6	20.0	22.0	17.8	19.6	23.2	19.0
1999	22.2	17.1	15.0	16.2	18.2	18.9	18.4	20.1	22.6	19.4	20.9	18.4	19.0
2000	20.7	15.8	14.6	14.8	17.5	22.2	28.4	24.4	23.8	21.4	25.0	27.1	21.0
2001	29.6	25.2	22.5	18.5	17.5	19.0	17.5	23.5	30.3	28.4	25.4	22.9	23.0

<sup>&</sup>lt;sup>2</sup> Kauai and Maui combined with Honolulu to avoid disclosure of individual operations.

HEAD CABBAGE: Acreage, yield, production, price, and value, by counties, 1997-2001

	•	, <b>,</b> , ,			•
Year	Harvested acres	Yield per acre	Production	Farm price	Value of sales
		1,000 pc	ounds	Cents per pound	1,000 dollars
State 1					
1997	650	20.0	13,000	20.5	2,665
1998	600	25.5	15,300	18.0	2,754
1999	550	26.0	14,300	18.0	2,574
2000	540	27.0	14,600	19.0	2,774
2001	500	25.0	12,500	22.0	2,750
Counties:					
Hawaii/Hon	olulu/Kauai <sup>2</sup>				
1997	350	18.0	6,300	20.4	1,285
1998	320	25.0	8,000	18.0	1,440
1999	340	25.3	8,600	18.2	1,565
2000	350	26.6	9,300	19.4	1,804
2001	330	23.8	7,850	23.0	1,806
Maui					
1997	300	22.3	6,700	20.6	1,380
1998	280	26.1	7,300	18.0	1,314
1999	210	27.1	5,700	17.7	1,009
2000	190	27.9	5,300	18.3	970
2001	170	27.4	4,650	20.3	944

<sup>&</sup>lt;sup>1</sup> Sum of county estimates may not add to State total due to rounding.

## HEAD CABBAGE: Acreage, production, and price, State of Hawaii, 1997-2001

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
Harvested	acres												
1997	47	54	54	56	58	52	54	50	62	55	54	54	650
1998	54	52	56	50	50	48	50	49	47	48	48	48	600
1999	49	56	50	48	44	42	41	41	42	44	47	46	550
2000	51	44	50	44	41	48	41	42	46	46	40	47	540
2001	49	44	46	41	46	43	48	42	42	31	31	37	500
Productio	n - 1,000 p	ounds											
1997	842	795	1,077	1,094	1,195	1,179	1,262	1,109	1,178	1,025	1,048	1,196	13,000
1998	1,126	1,256	1,272	1,240	1,404	1,234	1,314	1,266	1,338	1,384	1,249	1,217	15,300
1999	1,223	1,221	1,518	1,135	1,118	1,016	1,112	1,124	1,193	1,295	1,162	1,183	14,300
2000	1,258	1,227	1,401	1,287	1,263	1,326	1,236	1,250	978	1,231	1,169	924	14,600
2001	1,005	925	1,234	980	1,103	1,165	1,164	1,179	1,085	1,094	668	898	12,500
Farm pric	e - cents p	er pound											
1997	24.5	25.9	21.1	19.0	17.5	16.0	16.6	23.6	20.5	22.5	24.2	18.7	20.5
1998	21.6	19.9	16.8	16.3	16.4	16.5	16.1	17.0	18.0	16.3	18.7	23.1	18.0
1999	22.0	18.3	14.0	15.0	15.8	17.7	20.6	20.7	19.1	16.8	20.7	16.8	18.0
2000	19.6	17.7	14.9	15.2	15.8	18.2	18.4	19.0	20.2	23.1	22.5	26.4	19.0
2001	25.8	26.3	26.8	23.4	20.9	16.6	16.5	18.1	20.8	22.1	25.6	24.3	22.0

<sup>&</sup>lt;sup>2</sup> Honolulu and Kauai combined with Hawaii to avoid disclosure of individual operations.

CELERY: Acreage, yield, production, price, and value, by counties, 1997-2001

Year	Harvested acres	Yield per acre	Production	Farm price	Value of sales
		1,000 po	unds	Cents per pound	1,000 dollars
State 1					
1997	50	25.0	1,250	30.0	375
1998	50	26.0	1,300	28.0	364
1999	50	26.0	1,300	29.0	377
2000	50	22.0	1,100	31.0	341
2001	50	23.0	1,150	32.0	368
Counties: Hawaii					
1997	30	29.3	880	31.0	273
1998	30	27.7	830	29.4	244
1999	25	32.0	800	31.5	252
2000	25	30.0	750	32.4	243
2001	25	26.0	650	33.2	216
Maui					
1997	20	18.5	370	27.5	102
1998	20	23.5	470	25.5	120
1999	25	20.0	500	25.0	125
2000	25	14.0	350	28.0	98
2001	25	20.0	500	30.4	152

<sup>&</sup>lt;sup>1</sup> Sum of county estimates may not add to State total due to rounding.

CELERY: Acreage, production, and price, State of Hawaii, 1997-2001

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
Harvested	acres												
1997	5	4	3	4	5	4	4	4	4	4	4	5	50
1998	4	4	5	4	5	4	4	4	4	4	4	4	50
1999 2000 <sup>1</sup> <b>2001</b> <sup>1</sup>	4	4	4	4	5	4	4	4	5	4	4	4	50
Productio	n - 1,000 p	oounds											
1997	111	100	92	102	125	124	117	95	87	103	92	102	1,250
1998	96	108	112	125	130	112	113	123	99	99	95	88	1,300
1999 2000 <sup>1</sup> <b>2001</b> <sup>1</sup>	107	105	102	106	108	99	99	103	116	109	125	121	1,300
Farm price	e - cents p	er pound											
1997	30.5	29.6	31.1	30.2	29.8	28.1	29.3	30.1	30.4	30.8	31.1	29.6	30.0
1998	28.1	27.7	27.0	28.5	28.8	28.5	28.4	27.8	28.1	25.2	30.3	26.6	28.0
1999 2000 <sup>1</sup> <b>2001</b> <sup>1</sup>	28.1	30.3	30.5	29.1	29.7	28.6	29.3	29.0	28.9	27.6	28.8	28.7	29.0

<sup>&</sup>lt;sup>1</sup> Data not shown separately beginning 2000.

#### SWEET CORN: Acreage, yield, production, price, and value, by counties, 1997-2001

Year	Harvested acres	Yield per acre	Production	Farm price	Value of sales	
		1,000 po	unds	Cents per pound	1,000 dollars	
State 1						
1997	420	3.1	1,300	54.0	702	
1998	400	2.8	1,100	57.0	627	
1999	450	3.8	1,700	58.0	986	
2000	440	5.5	2,400	55.0	1,320	
2001	440	4.3	1,900	64.0	1,216	
Counties:						
Hawaii/Kaua	i <sup>2</sup>					
1997	155	3.9	610	47.5	290	
1998	120	3.4	410	49.6	203	
1999	180	4.6	830	52.3	434	
2000	155	6.6	1,020	43.3	442	
2001	170	5.0	850	59.4	505	
Honolulu						
1997	240	2.3	560	56.0	314	
1998	240	2.2	520	59.0	307	
1999	215	2.9	630	62.0	391	
2000 <sup>3</sup>	285	4.8	1,380	63.6	878	
2001 <sup>3</sup>	270	3.9	1,050	67.7	711	
Maui						
1997	25	5.2	130	75.5	98	
1998	40	4.3	170	69.0	117	
1999	55	4.4	240	67.0	161	
2000 <sup>3</sup>						
2001 <sup>3</sup>						

<sup>&</sup>lt;sup>1</sup> Sum of county estimates may not add to State total due to rounding. <sup>2</sup> Kauai combined with Hawaii to avoid disclosure of individual operations. <sup>3</sup> Maui combined with Honolulu to avoid disclosure of individual operations.

#### SWEET CORN: Acreage, production, and price, State of Hawaii, 1997-2001

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
Harvested	dacres												
1997	11	13	34	27	37	42	55	52	47	37	36	29	420
1998	20	19	20	42	37	44	54	39	32	32	38	23	400
1999	15	14	30	30	31	46	52	51	38	47	49	47	450
2000	31	20	28	38	41	41	39	49	38	43	42	30	440
2001	35	17	26	33	46	40	39	45	35	40	46	38	440
Productio	n - 1,000 i	oounds											
1997	26	25	94	93	113	125	178	197	136	105	115	93	1,300
1998	65	58	54	149	107	97	129	97	96	81	104	63	1,100
1999	32	20	88	90	132	198	202	212	153	201	159	213	1,700
2000	176	134	144	172	232	241	274	265	222	240	175	125	2,400
2001	98	46	120	163	217	220	197	241	122	107	184	185	1,900
Farm pric	e - cents p	er pound											
1997	47.3	48.4	47.0	55.8	53.6	63.4	49.7	60.5	57.0	53.6	48.4	47.4	54.0
1998	53.5	51.9	53.2	55.4	56.6	51.3	57.8	64.1	63.5	62.1	56.0	54.2	57.0
1999	55.8	60.4	72.5	59.2	62.1	43.3	45.9	58.9	54.0	62.3	63.8	67.4	58.0
2000	50.2	60.2	78.3	56.5	57.3	54.6	41.3	49.0	49.8	64.6	64.8	55.0	55.0
2001	67.9	73.9	65.8	58.3	76.7	62.3	60.0	60.7	60.4	59.3	62.9	65.4	64.0

#### CUCUMBERS: Acreage, yield, production, price, and value, by counties, 1997-2001

Year	Harvested acres	Yield per acre	Production	Farm price	Value of sales	
		1,000 po	unds	Cents per pound	1,000 dollars	
State 1						
1997	440	12.5	5,500	40.0	2,200	
1998	480	12.5	6,000	42.0	2,520	
1999	470	12.3	5,800	43.0	2,494	
2000	400	14.3	5,700	44.0	2,508	
2001	370	14.3	5,300	44.0	2,332	
Counties:						
Hawaii/Kaua	ai <sup>2</sup>					
1997	55	14.5	800	38.4	307	
1998	50	14.0	700	39.7	278	
1999	45	14.4	650	39.6	257	
2000	40	17.5	700	42.2	295	
2001	30	19.0	570	46.1	263	
Honolulu						
1997	230	9.1	2,100	50.5	1,061	
1998	260	9.2	2,400	51.0	1,224	
1999	280	10.2	2,850	49.0	1,397	
2000	200	12.5	2,500	49.0	1,225	
2001	185	12.1	2,240	44.7	1,001	
Maui						
1997	155	16.8	2,600	32.0	832	
1998	170	17.1	2,900	35.1	1,018	
1999	145	15.9	2,300	36.5	840	
2000	160	15.6	2,500	39.5	988	
2001	155	16.1	2,490	42.9	1,068	

<sup>&</sup>lt;sup>1</sup> Sum of county estimates may not add to State total due to rounding.

#### CUCUMBERS: Acreage, production, and price, State of Hawaii, 1997-2001

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
Harvested	l acres 1												
1997	17	23	36	38	40	39	41	45	48	42	43	41	440
1998	42	37	33	44	43	44	46	44	42	39	40	44	480
1999	41	36	42	42	39	32	41	41	44	43	48	48	470
2000	35	34	34	35	35	31	31	32	32	33	36	36	400
2001	33	31	33	31	25	32	31	31	29	32	32	30	370
Productio	n - 1,000 p	ounds											
1997	305	356	340	460	447	564	476	525	689	511	442	385	5,500
1998	391	320	453	574	522	514	647	568	499	501	482	529	6,000
1999	557	429	537	588	456	352	538	547	477	482	448	389	5,800
2000	470	464	530	553	536	504	488	408	413	476	391	467	5,700
2001	436	447	503	510	460	498	488	447	366	455	366	324	5,300
Farm pric	e - cents p	er pound											
1997	40.6	53.0	43.8	41.2	37.5	36.4	37.2	39.9	34.1	39.2	42.0	43.7	40.0
1998	48.4	45.0	52.5	39.9	46.2	38.1	35.9	38.4	38.1	39.9	40.2	46.9	42.0
1999	47.0	49.2	42.1	38.1	39.0	54.8	38.4	36.7	37.4	39.7	53.1	47.7	43.0
2000	52.1	51.3	42.5	51.1	39.7	35.2	33.9	38.2	45.1	44.7	47.9	46.9	44.0
2001	43.7	46.7	46.2	43.6	40.0	41.0	42.6	42.4	44.2	44.5	43.4	52.6	44.0

<sup>&</sup>lt;sup>1</sup> Sum of monthly data exceeds total because harvest period longer than 1 month.

<sup>&</sup>lt;sup>2</sup> Kauai combined with Hawaii to avoid disclosure of individual operations.

DAIKON: Acreage, yield, production, price, and value, by counties, 1997-2001

Year	Harvested acres	Yield per acre	Production	Farm price	Value of sales
	•	1,000 po	unds	Cents per pound	1,000 dollars
State 1					
1997	290	11.4	3,300	28.5	941
1998	300	10.0	3,000	31.5	945
1999	300	9.0	2,700	28.0	756
2000	350	8.9	3,100	28.0	868
2001	330	9.7	3,200	28.0	896
Counties:					
Hawaii					
1997	190	10.5	2,000	27.5	550
1998	200	8.5	1,700	30.0	510
1999	220	8.2	1,800	26.5	477
2000	250	8.4	2,100	26.5	557
2001	230	9.6	2,200	26.3	579
Honolulu/Ka	auai/Maui <sup>2</sup>				
1997	100	13.0	1,300	30.1	391
1998	100	13.0	1,300	33.5	435
1999	80	11.3	900	31.0	279
2000	100	10.0	1,000	31.1	311
2001	100	10.0	1,000	31.7	317

#### DAIKON: Acreage, production, and price, State of Hawaii, 1997-2001

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
1997 1998 <sup>1</sup> 1999 <sup>1</sup> 2000 <sup>1</sup> <b>2001</b> <sup>1</sup>	l acres 26	24	25	22	23	20	22	25	25	26	26	26	290
Processin Producti 1997 1998 <sup>1</sup> 1999 <sup>1</sup> 2000 <sup>1</sup> <b>2001</b> <sup>1</sup>	ng and fres on - 1,000 267		262	242	253	225	260	343	272	265	321	316	3,300
Farm pri 1997 1998 <sup>1</sup> 1999 <sup>1</sup> 2000 <sup>1</sup>	<b>ce</b> - <i>cent</i> s <sub>i</sub> 33.5	per pound 33.1	32.1	30.0	28.4	29.9	27.7	25.1	26.0	25.5	26.3	26.6	28.5

<sup>&</sup>lt;sup>1</sup> Data not shown separately beginning 1998.

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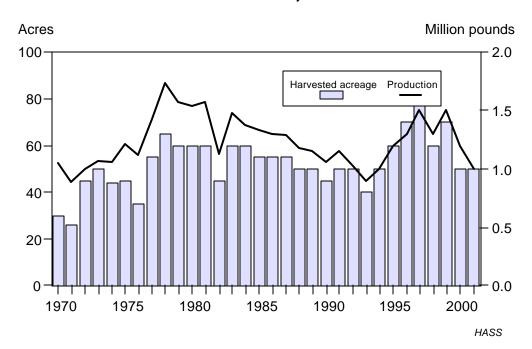
Sum of county estimates may not add to State total due to rounding.
 Kauai and Maui combined with Honolulu to avoid disclosure of individual operations.

EGGPLANT: Acreage, yield, production, price, and value, by counties, 1997-2001

Year	Harvested acres	Yield per acre	Production	Farm price	Value of sales
		1,000 po	unds	Cents per pound	1,000 dollars
State 1					
1997	80	18.8	1,500	79.0	1,185
1998	60	21.7	1,300	81.0	1,053
1999	70	21.4	1,500	76.0	1,140
2000	50	24.0	1,200	70.0	840
2001	50	20.0	1,000	66.0	660
Counties:					
Hawaii/Kau	ai/Maui <sup>2</sup>				
1997	30	25.0	750	72.0	540
1998	15	30.0	450	75.1	338
1999	20	20.0	400	70.0	280
2000	10	23.0	230	63.9	147
2001	15	16.0	240	85.0	204
Honolulu					
1997	50	15.0	750	86.0	645
1998	45	18.9	850	84.1	715
1999	50	22.0	1,100	78.2	860
2000	40	24.3	970	71.4	693
2001	35	21.7	760	60.0	456

<sup>&</sup>lt;sup>1</sup> Sum of county estimates may not add to State total due to rounding.

# EGGPLANT: Acreage and Production, State of Hawaii, 1970-2001



<sup>&</sup>lt;sup>2</sup>Kauai and Maui combined with Hawaii to avoid disclosure of individual operations.

# LETTUCES (HEAD, SEMI-HEAD): Acreage, yield, production, price, and value, by counties, 1997-2001

Year	Harvested acres	Yield per acre	Production	Farm price	Value of sales
		1,000 pc	ounds	Cents per pound	1,000 dollars
State 1					
1997	145	11.0	1,600	46.0	736
1998	170	10.0	1,700	48.0	816
1999	170	8.8	1,500	49.0	735
2000	150	8.7	1,300	50.0	650
2001	140	8.6	1,200	50.0	600
Counties:					
Hawaii					
1997	90	12.6	1,130	44.5	503
1998	110	11.3	1,240	45.0	558
1999	90	11.0	990	46.0	455
2000	95	9.7	920	44.0	405
2001	85	10.5	890	43.0	383
Honolulu/Ka	auai <sup>2</sup>				
1997	40	9.3	370	52.0	192
1998	45	9.0	405	57.8	234
1999³	80	6.4	510	54.9	280
2000 <sup>3</sup>	55	6.9	380	64.6	245
2001 <sup>3</sup>	55	5.6	310	70.1	217
Maui					
1997	15	6.7	100	41.0	41
1998	15	3.7	55	42.7	23
1999³					
2000 <sup>3</sup>					
2001 <sup>3</sup>					

<sup>&</sup>lt;sup>1</sup> Sum of county estimates may not add to State total due to rounding.

#### LETTUCES (HEAD, SEMI-HEAD): Acreage, production, and price, State of Hawaii, 1997-2001

	,			,		<b>O</b> , .		,	•	•		•	
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
Harvested													
1997	13	13	14	13	12	10	12	12	12	9	12	13	145
1998	14	17	14	17	14	14	15	14	13	13	12	13	170
1999	10	14	14	14	17	15	16	13	15	12	16	14	170
2000	14	13	15	10	14	12	13	12	12	11	12	12	150
2001	14	13	14	13	12	12	11	9	11	10	10	11	140
Productio	<b>n</b> - 1,000 p	ounds											
1997	93	126	157	159	166	136	137	144	127	110	123	122	1,600
1998	139	150	153	216	167	131	143	129	119	114	111	128	1,700
1999	118	120	150	147	164	134	146	127	98	94	102	100	1,500
2000	107	114	126	112	122	125	115	111	99	91	87	91	1,300
2001	97	101	127	115	114	100	94	103	93	97	92	67	1,200
Farm pric	e - cents p	er pound											
1997	49.1	46.8	44.8	42.5	42.4	45.9	44.1	44.6	46.8	49.6	49.2	50.1	46.0
1998	49.1	49.1	48.2	46.8	50.9	48.8	46.3	47.1	45.6	47.8	47.6	47.7	48.0
1999	46.9	50.1	45.9	49.5	49.2	49.0	46.9	49.6	49.3	54.5	49.6	50.3	49.0
2000	76.9	48.0	47.2	47.2	47.3	46.8	46.1	47.5	48.1	47.2	48.3	51.1	50.0
2001	50.0	49.9	49.4	49.4	47.2	48.7	50.3	50.1	52.1	50.8	51.2	53.2	50.0

<sup>&</sup>lt;sup>2</sup> Kauai combined with Honolulu to avoid disclosure of individual operations.

<sup>&</sup>lt;sup>3</sup> Maui combined with Honolulu and Kauai to avoid disclosure of individual operations.

DRY ONIONS: Acreage, yield, production, price, and value, by counties, 1997-2001

Year	Harvested acres	Yield per acre	Production	Farm price	Value of sales
		1,000 pc	unds	Cents per pound	1,000 dollars
State 1					
1997	185	9.2	1,700	98.0	1,666
1998	270	13.0	3,500	73.0	2,555
1999	310	11.0	3,400	67.0	2,278
2000	340	12.6	4,300	71.0	3,053
2001	300	18.0	5,400	75.0	4,050
Counties:					
	olulu/Kauai ²				
1997	5	2.0	10	80.0	8
1998	35	14.3	500	37.5	188
1999	120	4.2	500	43.2	216
2000	150	10.7	1,600	61.7	987
2001	150	21.7	3,250	63.3	2,057
Maui					
1997	180	9.4	1,690	98.1	1,658
1998	235	12.8	3,000	78.9	2,367
1999	190	15.3	2,900	71.1	2,062
2000	190	14.2	2,700	76.5	2,066
2001	150	14.3	2,150	92.7	1,993

#### DRY ONIONS: Acreage, production, and price, State of Hawaii, 1997-2001

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
Harvested	acres												
1997	6	3	14	16	19	22	32	18	16	11	14	14	185
1998	14	11	16	37	45	36	21	23	22	13	21	11	270
1999	11	11	29	51	52	42	21	21	13	17	24	18	310
2000	5	9	56	59	28	32	25	21	43	35	17	10	340
2001	10	33	28	29	29	30	16	20	21	25	15	44	300
Productio	n - 1,000 p	ounds											
1997	48	17	135	189	203	140	285	133	178	102	134	136	1,700
1998	129	138	299	607	611	534	227	279	186	179	158	153	3,500
1999	112	131	332	332	436	394	307	355	204	217	351	229	3,400
2000	61	97	880	771	422	667	337	296	241	241	166	121	4,300
2001	108	165	927	1,355	568	848	418	289	263	135	188	136	5,400
Farm price	e - cents p	er pound											
1997	121.6	131.0	166.6	117.2	84.2	74.8	71.9	68.5	84.8	93.0	109.0	128.7	98.0
1998	143.4	142.9	142.2	76.7	45.2	37.5	39.3	49.7	48.2	70.0	110.7	122.6	73.0
1999	129.5	134.8	110.5	65.6	42.3	34.6	36.4	51.6	67.5	71.7	75.6	86.0	67.0
2000	105.7	126.9	89.7	64.6	51.7	56.6	57.3	64.4	56.7	71.8	94.6	108.5	71.0
2001	113.5	93.1	73.9	68.0	81.5	58.1	55.4	73.0	98.9	113.3	109.0	110.9	75.0

<sup>&</sup>lt;sup>1</sup> Sum of county estimates may not add to State total due to rounding. <sup>2</sup> Honolulu and Kauai combined with Hawaii to avoid disclosure of individual operations.

#### GREEN ONIONS: Acreage, yield, production, price, and value, by counties, 1997-2001

Year	Harvested acres	Yield per acre	Production	Farm price	Value of sales	
		1,000 po	unds	Cents per pound	1,000 dollars	
State 1						
1997	155	9.0	1,400	96.0	1,344	
1998	180	8.3	1,500	86.0	1,290	
1999	190	8.9	1,700	85.0	1,445	
2000	150	10.0	1,500	86.0	1,290	
2001	120	11.7	1,400	89.0	1,246	
Counties:						
Hawaii/Kaua	ai <sup>2</sup>					
1997	25	4.6	115	93.0	107	
1998	25	5.0	125	90.5	113	
1999³	45	6.2	280	94.9	266	
2000 <sup>3</sup>	25	8.0	200	99.0	198	
2001 <sup>3</sup>	20	10.0	200	89.0	178	
Honolulu						
1997	120	9.8	1,180	95.4	1,126	
1998	140	8.9	1,250	84.5	1,056	
1999	145	9.8	1,420	83.0	1,179	
2000	125	10.4	1,300	84.0	1,092	
2001	100	12.0	1,200	89.0	1,068	
Maui						
1997	10	10.5	105	106.0	111	
1998	15	8.3	125	96.5	121	
1999 <sup>3</sup>						
2000 <sup>3</sup>						
2001 <sup>3</sup>						

<sup>&</sup>lt;sup>1</sup> Sum of county estimates may not add to State total due to rounding.

#### GREEN ONIONS: Acreage, production, and price, State of Hawaii, 1997-2001

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
Harvested				4.0		40	4.5		4.0		4.5	4.0	455
1997	9	11	11	10	11	13	15	14	16	14	15	16	155
1998	16	15	14	14	15	16	15	15	15	14	16	15	180
1999	15	15	15	16	16	15	24	15	13	15	15	16	190
2000	14	14	13	12	12	13	12	12	11	12	12	13	150
2001	10	10	8	10	10	10	11	11	9	10	10	11	120
Productio	n - 1,000 p	oounds											
1997	89	106	111	122	124	123	122	114	126	122	118	123	1,400
1998	129	124	114	117	123	128	125	126	125	120	139	130	1,500
1999	140	143	139	138	132	143	150	142	141	142	149	141	1,700
2000	118	122	123	109	126	140	129	128	114	123	127	141	1,500
2001	127	123	119	144	135	121	121	123	102	96	88	101	1,400
Farm pric	e - cents p	er pound											
1997	105.0	109.2	102.5	102.6	97.5	91.0	88.4	87.4	91.0	92.1	94.2	95.1	96.0
1998	91.3	88.0	90.2	95.8	89.2	86.6	79.2	79.0	76.5	82.1	85.5	88.7	86.0
1999	86.5	85.8	87.0	83.9	79.8	78.8	88.3	87.4	84.9	85.5	85.3	86.0	85.0
2000	92.7	92.8	87.8	90.1	86.3	83.4	81.4	82.1	83.2	82.6	82.2	88.3	86.0
2001	89.7	90.3	88.0	88.6	84.3	85.6	86.6	88.5	89.3	91.5	92.0	97.3	89.0

<sup>&</sup>lt;sup>2</sup> Kauai combined with Hawaii to avoid disclosure of individual operations.

<sup>&</sup>lt;sup>3</sup> Maui combined with Hawaii and Kauai to avoid disclosure of individual operations.

#### GREEN PEPPERS: Acreage, yield, production, price, and value, by counties, 1997-2001

	•	· • · · ·	· • · ·	, ,	•
Year	Harvested acres	Yield per acre	Production	Farm price	Value of sales
		1,000 pc	ounds	Cents per pound	1,000 dollars
State 1					
1997	200	10.0	2,000	49.0	980
1998	170	17.6	3,000	50.0	1,500
1999	200	15.0	3,000	53.0	1,590
2000	200	14.0	2,800	55.0	1,540
2001	210	14.8	3,100	60.0	1,860
Counties:					
Hawaii/Hone	olulu/Kauai ²				
1997	195	9.9	1,940	49.0	951
1998 <sup>3</sup>					
1999 <sup>3</sup>					
2000 <sup>3</sup>					
2001 <sup>3</sup>					
Maui					
1997	5	12.0	60	50.8	30
1998 <sup>3</sup>					
1999³					
2000 <sup>3</sup>					
2001 <sup>3</sup>					

<sup>&</sup>lt;sup>1</sup> Sum of county estimates may not add to State total due to rounding.

## GREEN PEPPERS: Acreage, production, and price, State of Hawaii, 1997-2001

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
Harvested	l acres 1												
1997	21	17	16	10	13	10	20	19	25	21	20	22	200
1998	21	18	16	11	14	10	20	19	25	21	20	23	170
1999	19	20	19	19	17	17	19	18	22	19	18	18	200
2000	24	20	20	20	19	19	17	18	16	17	16	16	200
2001	17	17	17	18	18	18	19	18	17	17	17	17	210
Productio	n - 1,000 p	ounds											
1997	57	22	145	106	206	232	268	260	144	112	199	249	2,000
1998	235	192	248	251	249	257	293	177	307	253	256	282	3,000
1999	231	231	276	247	197	258	251	264	228	260	278	279	3,000
2000	246	238	259	285	212	216	218	222	202	212	214	276	2,800
2001	265	267	254	240	261	259	274	272	251	250	248	259	3,100
Farm price	e - cents p	er pound											
1997	60.2	65.9	48.0	47.6	48.0	45.9	48.1	45.2	45.4	47.0	53.3	54.7	49.0
1998	54.2	57.8	51.0	49.6	58.6	47.0	51.4	43.5	46.5	45.6	47.8	48.6	50.0
1999	46.2	44.0	46.1	54.7	58.1	55.3	60.5	48.5	46.5	51.6	62.9	59.4	53.0
2000	59.1	58.4	55.9	66.4	54.4	52.6	51.2	51.0	45.6	51.1	51.7	56.6	55.0
2001	61.5	67.2	75.4	64.8	63.4	54.9	54.2	55.9	53.8	54.2	58.2	57.2	60.0

<sup>&</sup>lt;sup>1</sup> Sum of monthly data exceeds total because harvest period longer than 1 month.

<sup>&</sup>lt;sup>2</sup> Honolulu and Kauai combined with Hawaii to avoid disclosure of individual operations.

<sup>&</sup>lt;sup>3</sup> Data not shown separately to avoid disclosure of individual operations but combined and included in the State total.

ROMAINE: Acreage, yield, production, price, and value, by counties, 1997-2001

Year	Harvested acres	Yield per acre	Production	Farm price	Value of sales
		1,000 po	unds	Cents per pound	1,000 dollars
State 1					
1997	165	11.5	1,900	39.0	741
1998	220	15.0	3,300	38.0	1,254
1999	240	11.2	2,700	37.0	999
2000	190	10.5	2,000	43.0	860
2001	190	10.5	2,000	45.0	900
Counties:					
Hawaii/Hon	olulu <sup>2</sup>				
1997	75	10.0	750	43.6	327
1998	110	12.7	1,400	43.4	608
1999	145	11.0	1,600	40.4	646
2000	135	10.4	1,400	44.0	616
2001	135	10.7	1,450	47.3	686
Maui					
1997	90	12.8	1,150	36.0	414
1998	110	17.3	1,900	34.0	646
1999	95	11.6	1,100	32.0	352
2000	55	10.9	600	40.7	244
2001	55	10.0	550	38.9	214

<sup>&</sup>lt;sup>1</sup> Sum of county estimates may not add to State total due to rounding.

#### ROMAINE: Acreage, production, and price, State of Hawaii, 1997-2001

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
Harvested	acres												
1997	12	17	15	14	12	11	12	13	12	13	15	19	165
1998	22	24	22	19	17	19	16	15	17	15	16	18	220
1999	21	23	27	27	24	24	23	20	13	11	14	13	240
2000	22	21	18	14	17	12	11	13	13	14	18	17	190
2001	19	22	21	24	15	14	10	9	12	11	17	16	190
Productio	n - 1.000 p	ounds											
1997	91 ′	125	178	211	179	136	153	146	116	131	163	271	1,900
1998	313	325	305	352	290	269	232	259	259	215	252	229	3,300
1999	312	264	348	324	239	250	196	153	124	160	179	151	2,700
2000	201	202	236	219	214	129	115	105	119	129	116	215	2,000
2001	238	264	194	285	179	154	114	104	94	99	152	123	2,000
Farm pric	e - cents p	er pound											
1997	46.9	43.6	38.4	34.8	42.2	34.8	39.9	34.9	40.2	44.1	44.8	33.4	39.0
1998	37.2	25.9	29.6	42.8	42.6	48.0	46.0	40.3	39.3	38.8	32.1	36.0	38.0
1999	34.9	29.8	30.1	34.4	40.0	43.7	39.4	39.2	40.4	42.4	40.6	41.6	37.0
2000	40.9	42.7	38.9	41.0	43.1	41.4	41.2	40.1	42.2	43.8	44.3	54.5	43.0
2001	45.4	48.1	43.8	44.3	43.1	42.6	44.1	45.4	44.7	43.2	46.9	46.7	45.0

<sup>&</sup>lt;sup>2</sup> Honolulu combined with Hawaii to avoid disclosure of individual operations.

## SWEET POTATOES: Acreage, yield, production, price, and value, by counties, 1997-2001

			· •				
Year	Harvested acres	Yield per acre	Production	Farm price	Value of sales		
		1,000 pc	ounds	Cents per pound	1,000 dollars		
State 1							
1997	240	10.0	2,400	52.0	1,248		
1998	190	10.0	1,900	56.0	1,064		
1999	340	8.5	2,900	63.0	1,827		
2000	260	9.6	2,500	60.0	1,500		
2001	220	8.2	1,800	50.0	900		
Counties:							
Hawaii/Hon	olulu/Kauai <sup>2</sup>						
1997	170	9.4	1,600	51.0	816		
1998	125	9.2	1,150	55.5	638		
1999	270	8.5	2,300	63.8	1,467		
2000	195	9.6	1,880	60.0	1,128		
2001	170	8.4	1,420	47.3	672		
Maui							
1997	70	11.4	800	54.0	432		
1998	65	11.5	750	56.8	426		
1999	70	8.6	600	60.0	360		
2000	65	9.5	620	60.0	372		
2001	50	7.6	380	60.0	228		

<sup>&</sup>lt;sup>1</sup> Sum of county estimates may not add to State total due to rounding.

## SWEET POTATOES: Acreage, production, and price, State of Hawaii, 1997-2001

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
Harvestee 1997 1998 <sup>1</sup> 1999 <sup>1</sup> 2000 <sup>1</sup> <b>2001</b> <sup>1</sup>	l acres 22	22	20	21	17	18	19	19	20	22	22	18	240
Productio 1997 1998 <sup>1</sup> 1999 <sup>1</sup> 2000 <sup>1</sup> <b>2001</b> <sup>1</sup>	<b>n</b> - <i>1,000 p</i> 163	oounds 114	131	189	216	162	261	254	228	213	253	216	2,400
Farm price 1997 1998 <sup>1</sup> 1999 <sup>1</sup> 2000 <sup>1</sup> <b>2001</b> <sup>1</sup>	<b>e</b> - cents p 54.2	er pound 56.0	56.3	56.3	57.0	56.0	51.9	48.4	49.7	47.9	48.5	49.1	52.0

<sup>&</sup>lt;sup>1</sup> Data not shown separately beginning 1998.

<sup>&</sup>lt;sup>2</sup>Honolulu and Kauai combined with Hawaii to avoid disclosure of individual operations.

## ITALIAN SQUASH

ITALIAN SQUASH: Acreage, yield, production, price, and value, by counties, 1997-2001

	U	· • · · ·		, ,	•	
Year	Harvested acres	Yield per acre	Production	Farm price	Value of sales	
		1,000 pc	ounds	Cents per pound	1,000 dollars	
State 1						
1997	200	7.0	1,400	50.0	700	
1998	170	8.8	1,500	49.0	735	
1999	180	10.6	1,900	45.0	855	
2000	180	12.2	2,200	47.0	1,033	
2001	160	11.3	1,800	50.0	900	
Counties:						
Hawaii/Hono	olulu/Kauai ²					
1997	160	6.6	1,050	49.7	522	
1998	120	8.6	1,030	48.5	500	
1999	110	10.5	1,150	45.3	521	
2000	115	10.6	1,220	45.3	553	
2001	100	10.0	1,000	50.0	500	
Maui						
1997	40	8.8	350	51.0	179	
1998	50	9.4	470	50.0	235	
1999	70	10.7	750	44.5	334	
2000	65	15.1	980	49.0	480	
2001	60	13.3	800	50.0	400	

65

Sum of county estimates may not add to State total due to rounding.
 Honolulu and Kauai combined with Hawaii to avoid disclosure of individual operations.

TARO: Number of farms, acreage, marketings, price, and value, by counties, 1997-2001

		А	creage in cro	pp <sup>1</sup>		Marketings			Farm price		Value
Year	Farms	Poi taro	Chinese taro	Total	Fresh	Processed	Total	Poi taro	Chinese taro	All	of sales
	Number		Acres			1,000 pounds		(	Cents per pound	l	1,000 dollars
State											
1997	160	370	80	450	400	5,100	5,500	51.5	46.9	51.0	2,805
1998	180	400	90	490	300	5,700	6,000	53.0	53.0	53.0	3,180
1999	190	420	80	500	300	6,500	6,800	53.0	53.5	53.0	3,604
2000	185	430	40	470	200	6,800	7,000	53.3	45.3	53.0	3,710
2001	170	420	20	440	200	6,200	6,400	53.2	50.0	53.0	3,392
Counties Hawaii	:										
1997	85	80	70	150	390	910	1,300	60.0	46.1	53.7	698
1998	100	90	70	160	250	850	1,100	61.0	53.0	57.0	627
1999	100	100	80	180	200	900	1,100	61.0	53.2	57.5	632
2000	85	80	40	120	200	700	900	61.6	45.3	56.2	506
2001	60	70	20	90	150	650	800	60.4	48.9	51.5	443
Honolu	lu/Maui²										
1997	25	80	5	85	10	890	900	49.5	90.0	50.0	450
1998	25	80	15	95	50	1,050	1,100	52.4	53.5	52.5	577
1999	25	90	*	90	100	1,300	1,400	52.4	54.9	52.6	736
2000	30	100	*	100	*	1,300	1,300	52.6	3	52.6	684
2001	40	100	*	100	50	1,250	1,300	53.0	57.3	53.0	691
Kauai											
1997	50	210	5	215	*	3,300	3,300	50.1	3	50.2	1,657
1998	55	230	5	235	*	3,800	3,800	52.0	3	52.0	1,976
1999	65	230	*	230	*	4,300	4,300	52.0	3	52.0	2,236
2000	70	250	*	250	*	4,800	4,800	52.5	3	52.5	2,520
2001	70	250	*	250	*	4,300	4,300	52.5	3	52.5	2,258

<sup>\* =</sup> Less than 5,000 pounds.

¹ Survey conducted in November each year. Does not include acreage used primarily for leaf production.

<sup>&</sup>lt;sup>2</sup> Maui combined with Honolulu to avoid disclosure of individual operations.

<sup>&</sup>lt;sup>3</sup> Data not shown separately but accounted for in State average.

TOMATOES: Acreage, yield, production, price, and value, by counties, 1997-2001

Year	Harvested acres	Yield per acre	Production	Farm price	Value of sales	
		1,000 pc	unds	Cents per pound	1,000 dollars	
State 1						
1997	340	30.0	10,200	54.0	5,508	
1998	300	34.0	10,200	55.0	5,610	
1999	420	40.0	16,800	47.0	7,896	
2000	500	33.0	16,500	52.0	8,580	
2001	580	30.2	17,500	53.0	9,275	
Counties:						
	olulu/Kauai <sup>2</sup>					
1997	95	22.4	2,130	67.8	1,444	
1998	145	30.3	4,400	61.2	2,693	
1999³						
2000 <sup>3</sup>						
2001 <sup>3</sup>						
Maui						
1997	245	32.9	8,070	50.4	4,064	
1998	155	37.4	5,800	50.3	2,917	
1999 <sup>3</sup>			-,		,-	
2000 <sup>3</sup>						
2001 <sup>3</sup>						

<sup>&</sup>lt;sup>1</sup> Sum of county estimates may not add to State total due to rounding.

TOMATOES: Acreage, production, and price, State of Hawaii, 1997-2001

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
Harveste	d acres 1												
1997	36	33	37	35	32	29	32	26	36	28	40	40	340
1998	44	43	46	40	30	22	13	11	9	25	57	46	300
1999	48	48	38	37	41	37	33	32	38	41	45	50	420
2000	49	49	43	50	58	56	33	40	42	47	44	48	500
2001	48	47	61	64	60	49	49	47	44	50	55	60	580
Production	on - 1,000	pounds											
1997	610	770	835	1,190	1,281	885	906	482	532	592	949	1,168	10,200
1998	853	1,060	1,264	1,196	880	915	139	153	150	781	1,287	1,522	10,200
1999	1,413	1,493	1,599	1,423	1,386	1,650	1,339	1,582	1,007	1,436	1,182	1,290	16,800
2000	1,138	1,318	1,208	1,347	1,423	1,414	1,252	1,372	1,173	1,381	1,727	1,747	16,500
2001	1,423	1,316	1,402	1,394	1,453	1,805	1,547	1,502	1,577	1,463	1,283	1,335	17,500
Farm price	e - cents p	er pound											
1997	52.8	58.7	65.8	59.4	49.1	50.5	45.1	48.3	52.8	44.7	58.0	57.3	54.0
1998	51.4	47.7	54.9	51.6	57.9	48.2	65.0	75.2	73.8	58.2	57.5	58.5	55.0
1999	56.6	45.1	42.1	48.7	51.4	50.1	43.3	39.1	48.5	38.3	51.9	52.0	47.0
2000	46.4	43.9	46.8	56.0	49.9	45.8	43.0	46.0	64.9	59.8	62.1	52.0	52.0
2001	58.8	63.2	61.6	55.6	56.6	51.5	43.5	49.7	43.7	45.9	55.3	54.7	53.0

<sup>&</sup>lt;sup>1</sup> Sum of monthly data exceeds total because harvest period longer than 1 month.

<sup>&</sup>lt;sup>2</sup> Honolulu and Kauai combined with Hawaii to avoid disclosure of individual operations.

<sup>&</sup>lt;sup>3</sup> Data not shown separately to avoid disclosure of individual operations but combined and included in the State total.

#### WATERMELONS: Acreage, yield, production, price, and value, by counties, 1997-2001

Year	Harvested acres	Yield per acre	Production	Farm price	Value of sales
		1,000 pc	ounds	Cents per pound	1,000 dollars
State 1					
1997	840	20.0	16,800	18.0	3,024
1998	790	20.0	15,800	21.0	3,318
1999	570	20.0	11,400	21.0	2,394
2000	560	22.5	12,600	25.0	3,150
2001	520	20.2	10,500	24.0	2,520
Counties: Hawaii/Kaua	ai <sup>2</sup>				
1997	10	10.5	105	33.4	35
1998	5	14.0	70	21.0	15
1999³	10	20.0	200	21.2	42
2000 <sup>3</sup>	5	40.0	200	25.0	50
2001 <sup>3</sup>	5	24.0	120	24.0	29
Honolulu					
1997	825	20.1	16,600	17.9	2,971
1998	775	20.1	15,590	21.0	3,274
1999	560	20.0	11,200	21.0	2,352
2000	555	22.3	12,400	25.0	3,100
2001	515	20.2	10,380	24.0	2,491
Maui					
1997	5	19.0	95	18.9	18
1998	10	14.0	140	21.0	29
1999 <sup>3</sup>					
2000 <sup>3</sup>					
2001 <sup>3</sup>					

<sup>&</sup>lt;sup>1</sup> Sum of county estimates may not add to State total due to rounding. <sup>2</sup> Kauai combined with Hawaii to avoid disclosure of individual operations. <sup>3</sup> Maui combined with Hawaii and Kauai to avoid disclosure of individual operations.

#### WATERMELONS: Acreage, production, and price, State of Hawaii, 1997-2001

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
Harvested	l acres 1												
1997	0	*	*	31	180	170	184	145	133	42	12	0	840
1998	*	0	0	37	85	143	173	160	125	60	16	*	790
1999	*	3	6	23	149	132	83	72	55	35	12	*	570
2000 <sup>2</sup>													
2001 <sup>2</sup>													
Productio	n - 1,000 g	ounds											
1997	0	2	2	39	3,142	4,052	3,887	3,441	1,467	627	141	0	16,800
1998	*	0	0	900	2,207	2,530	3,075	3,886	2,518	570	114	*	15,800
1999	66	42	44	523	2,147	2,040	1,662	2,206	1,827	785	50	8	11,400
2000 <sup>2</sup>													
2001 <sup>2</sup>													
Farm pric	<b>e</b> - cents p	er pound											
199 <b>7</b>	0 '	22.8	22.8	27.4	22.0	16.0	16.5	16.4	19.1	24.6	25.2	0	18.0
1998	0	0	0	32.7	26.3	20.8	18.7	19.0	17.8	21.6	23.6	0	21.0
1999	18.8	25.1	27.6	30.4	25.8	20.8	18.4	18.2	17.0	23.9	29.1	25.0	21.0
2000 <sup>2</sup>													
2001 <sup>2</sup>													

<sup>\* =</sup> Less than minimum amount to be estimated.

<sup>&</sup>lt;sup>1</sup> Sum of monthly data exceeds total because harvest period longer than 1 month. <sup>2</sup> Data not shown separately beginning 2000.

# OTHER VEGETABLES: Acreage, yield, production, price, and value, State of Hawaii, 1997-2001

		Otato of Hawai	,		
Crop and year	Harvested acres	Yield per acre	Production	Farm price	Value of sales
		1,000 po	ounds	Cents per pound	1,000 dollars
Bittermelon					
1997	20	9.0	180	95.0	171
1998	35	10.0	350	80.0	280
1999	40	13.8	550	74.0	407
2000	20	15.0	300	85.0	255
2001	15	16.7	250	80.0	200
Broccoli					
1997	140	3.2	450	54.0	243
1998	110	3.2	350	50.0	175
1999	75	4.0	300	50.0	150
2000	100	4.0	400	60.0	240
2001	155	3.5	550	65.0	358
Burdock					
1997	15	14.7	220	145.0	319
1998	15	13.3	200	160.0	320
1999	20	12.5	250	150.0	375
2000	15	12.0	180	150.0	270
2001	15	10.0	150	145.0	218
Cabbage, mus	stard				
1997	150	10.0	1,500	46.0	690
1998	140	10.7	1,500	40.0	600
1999	140	11.4	1,600	39.0	624
2000	130	11.5	1,500	43.0	645
2001	130	12.3	1,600	50.0	800
Cauliflower					
1997	15	13.3	200	45.0	90
1998	10	13.0	130	60.0	78
1999 <sup>1</sup>					
2000 <sup>1</sup>					
2001 <sup>1</sup>					
Dasheen					
1997	5	19.0	95	99.0	94
1998 <sup>1</sup>					
1999 ¹					
2000 <sup>1</sup>					
2001 <sup>1</sup>					
See footnotes a	at end of table.				Continu

cee footnotes at end of table.

## OTHER VEGETABLES: Acreage, yield, production, price, and value, State of Hawaii, 1997-2001 -- Continued

Crop and year	Harvested acres	Yield per acre	Production	Farm price	Value of sales
		1,000 ро	unds	Cents per pound	1,000 dollars
Peas, Chinese	9				
1997 1998 <sup>1</sup> 1999 <sup>1</sup> 2000 <sup>1</sup> <b>2001</b> <sup>1</sup>	5	5.0	25	170.0	43
Pumpkins					
1997	65	6.9	450	29.0	131
1998	50	11.0	550	20.0	110
1999	45	10.0	450	39.0	176
2000	15	11.3	170	45.1	77
2001	35	11.4	400	41.0	164
Radish					
1997	15	10.7	160	57.0	91
1998	15	10.0	150	59.0	89
1999	15	8.7	130	60.0	78
2000	10	10.0	100	63.0	63
2001	15	10.0	150	60.0	90
Squash, Orier	ntal (Hyotan and Togan)				
1997	25	12.0	300	42.0	126
1998	15	16.0	240	37.0	89
1999	30	20.0	600	36.0	216
2000	25	24.0	600	37.0	222
2001	20	25.0	500	35.0	175

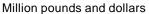
<sup>&</sup>lt;sup>1</sup> Data not shown separately to avoid disclosure of individual operations.

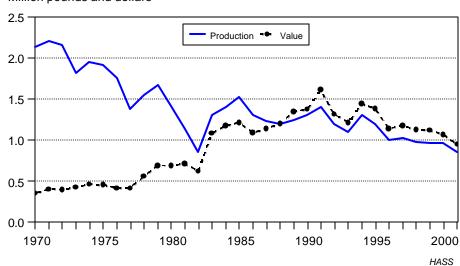
## PROCESSED CHINESE CABBAGE AND DAIKON, WATERCRESS

## PROCESSED CHINESE CABBAGE AND DAIKON: Quantity processed, price, and value, State of Hawaii, 1997-2001

		Chinese cabbage	e	Daikon			
Year	Quantity processed	Farm price	Value of sales	Quantity processed	Farm price	Value of sales	
	1,000 pounds	Cents per pound	1,000 dollars	1,000 pounds	Cents per pound	1,000 dollars	
1997	1,200	23.0	276	700	27.5	192	
1998	1,200	19.0	228	550	30.5	168	
1999	1,100	19.0	209	400	27.7	111	
2000	1,000	21.0	210	350	28.0	98	
2001	1,000	23.0	230	400	28.0	112	

## WATERCRESS: Production and Farm Value, State of Hawaii, 1970-2001





#### WATERCRESS: Acreage, production, price, and value, State of Hawaii, 1997-2001

Year	Acreage in crop	Acreage in crop Production Farm price		Value of sales
	Acres	1,000 pounds	Cents per pound	1,000 dollars
1997	35	1,020	115.0	1,173
1998	35	980	115.0	1,127
1999	35	970	115.0	1,116
2000	35	970	110.0	1,067
2001	35	860	110.0	946

### 2001 CATTLE, MILK, AND HOG HIGHLIGHTS

#### **CATTLE**

Cattle marketings during 2001 totaled 31.5 million pounds live weight, 21 percent below 2000, as the number of cattle and calves marketed declined 19 percent to 59,000 head. Not only were there fewer total cattle and calves marketed, but the proportion of heavier cattle marketed was smaller, both contributing to the decline. Exports during 2001 totaled 46,000 head, accounting for nearly 80 percent of all of the cattle and calves sold. The majority of animals exported were calves weighing less than 500 pounds, live weight. Local commercial slaughter during 2001 dipped 25 percent from 2000 to 12,700 head.

The annual average price ranchers received for all cattle and calves marketed increased 18 percent to \$57.10 per cwt., an increase resulting from improved prices for exports. Cash revenues for 2001, however, declined 6 percent from 2000 to \$18.0 million, a direct result of fewer cattle and calves sold. The inventory of cattle and calves on Hawaii's ranches totaled 152,000 head on January 1, 2002, an increase of 1 percent from 2001, but a decrease of 7 percent from 2000. The island of Hawaii which accounts for about 75 percent of the State's total, recorded a 3 percent increase in inventory to 113,600 head.

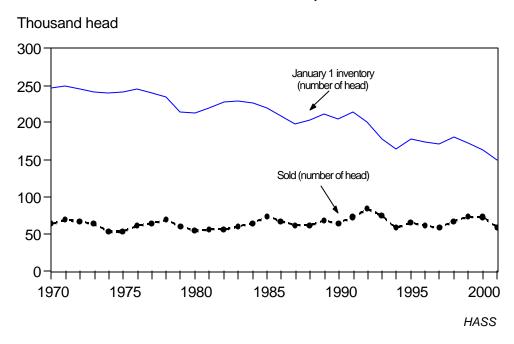
#### MILK

Hawaii's dairy cows produced 105.8 million pounds of milk in 2001 compared with 116.3 million pounds produced the previous year. About 68 percent of the milk was produced on Oahu, and the remainder on other islands, mostly Hawaii island. Statewide revenues for milk sold at the farm level during the year totaled \$26.5 million, 6 percent below 2000 receipts, the third year of decline. Producers received an average \$25.50 per hundredweight for milk delivered to the processors, \$1.00 more than 2000. The number of milk cows declined 600 head to 7,500 in 2001. The annual average output per cow was 14,107 pounds compared with 14,358 pounds produced in 2000.

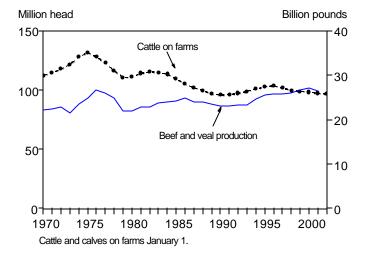
#### **HOGS AND PIGS**

Pork production during 2001 declined 3 percent to 5.4 million pounds, while the number of hogs marketed remained unchanged at 31,000 head. The average price farmers received for their hogs and pigs increased 6 percent to \$83.80 per hundred pounds, resulting in an increase in cash receipts from the sales of hogs and pigs to \$4.5 million, during 2001. The total number of hogs and pigs on hand in the State on December 1, 2001 was 27,000 head, 1,000 more than in 2000. The hog and pig inventory on the island of Oahu, at 14,800 head, declined to about 55 percent of the State's inventory.

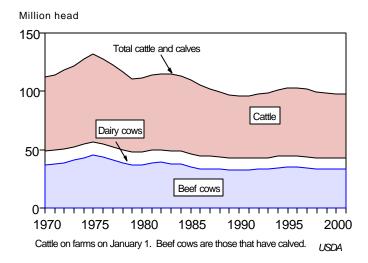
## Cattle Inventory and Marketings, State of Hawaii, 1970-2001



#### U.S. Cattle Numbers and Beef Production



#### U.S. Cattle on Farms



## CATTLE AND CALVES: January 1 inventory by sex classes and weight, by counties, 1998-2002

	All cattle	Al	All cows and heifers that have calved			Heifers 500 po	unds and over		Steers 500 lbs.	Bulls 500 lbs.	Steers, heifers,
Year	and calves	Total	Beef cows	Milk cows	Total	Beef cow replace- ments	Milk cow replace- ments	Other	and over	and over	and bulls under 500 lbs.
•						1,000 head					
State 1											
1998	180	97	88	9	28	16	4	8	10	5	40
1999	173	95	86	9	25	16	4	5	8	5	40
2000	164	93	84	9	24	14	4	6	8	4	35
2001	150	88	81	7	18	10	3	5	6	4	34
2002	152	85	78	7	20	10	3	7	8	4	35
Counties	s:										
Hawai											
1998	124.9	67.6	65.4	2.2	18.2	11.6	.8	5.8	6.0	3.5	29.6
1999	119.8	65.8	63.9	1.9	16.1	11.8	1.1	3.2	5.1	3.5	29.3
2000	114.4	65.4	63.4	2.0	16.5	10.9	1.4	4.2	5.2	3.0	24.3
2001	110.1	66.6	64.0	2.6	12.5	7.3	1.9	3.3	3.6	3.4	24.0
2002	113.6	64.6	61.6	3.0	13.9	8.1	1.7	4.1	4.4	3.4	27.3
Honolu	ulu										
1998	13.0	7.0	2.0	5.0	3.4	.9	2.3	.2	.3	.2	2.1
1999	13.4	7.2	2.0	5.2	3.2	.8	2.1	.3	.3	.2	2.5
2000	12.8	7.7	2.1	5.6	2.2	.4	1.6	.2	.2	.2	2.5
2001	9.4	5.5	.8	4.7	1.7	.2	1.3	.2	.1	.1	2.0
2002	8.4	4.9	1.2	3.7	1.6	.2	1.2	.2	.4	.1	1.4
Kauai											
1998	11.4	5.0	4.4	.6	2.2	.9	.4	.9	1.5	.4	2.3
1999	10.6	4.9	4.2	.7	1.8	.8	.3	.7	1.1	.3	2.5
2000	10.5	4.9	4.1	.8	1.8	.7	.2	.9	1.1	.3	2.4
2001	10.8	5.0	5.0	*	1.7	.9	0	.8	1.1	.3	2.7
2002	9.7	4.5	4.5	*	1.5	1.0	0	.5	1.2	.3	2.2
Maui											
1998	30.7	17.6	16.6	1.0	4.1	2.4	.6	1.1	1.8	.8	6.4
1999	29.2	17.0	16.1	.9	4.2	2.4	.6	1.2	1.6	.7	5.7
2000	26.3	14.9	14.8	.1	3.5	2.1	.4	1.0	1.3	.5	6.1
2001	19.7	11.1	11.1	*	2.1	1.3	.2	.6	1.1	.5	4.9
2002	20.3	11.0	11.0	*	3.0	1.1	0	1.9	1.8	.5	4.0

<sup>\* =</sup> Less than 50.

<sup>&</sup>lt;sup>1</sup> Sum of county estimates may not add to State total due to rounding.

## CATTLE AND CALVES: Number of operations, number and pounds sold, price, and value, by counties, 1997-2001

Year	Operations	Number sold 12	Pounds sold (live weight) <sup>3</sup>	Farm price (live weight) <sup>4</sup>	Value of sales <sup>2</sup>
				Dollars per	
	Number	1,000 head	1,000 pounds	hundredweight	1,000 dollars
State					
1997	830	58	35,890	39.90	14,323
1998	830	67	40,060	42.10	16,861
1999	800	74	38,070	44.10	16,806
2000	800	73	39,840	48.20	19,204
2001	800	59	31,520	57.10	18,007
Counties:					
Hawaii					
1997	480	42.7	24,362	39.60	9,658
1998	480	48.6	26,934	42.00	11,312
1999	470	56.7	27,736	44.60	12,363
2000	470	55.0	28,660	49.30	14,138
2001	460	45.0	22,957	58.50	13,438
Honolulu					
1997	50	2.3	1,911	30.40	581
1998	50	2.0	1,650	31.20	514
1999	60	2.0	1,522	36.20	551
2000	60	1.9	1,748	31.80	556
2001	60	1.9	1,522	39.70	604
Kauai					
1997	120	3.3	2,485	43.50	1,082
1998	120	4.0	3,035	45.90	1,394
1999	100	3.3	2,272	45.20	1,027
2000	100	4.1	2,725	47.00	1,280
2001	110	4.3	2,785	54.80	1,527
Maui					
1997	180	9.7	7,132	42.10	3,003
1998	180	12.4	8,441	43.10	3,641
1999	170	12.0	6,540	43.80	2,865
2000	170	12.0	6,707	48.20	3,230
2001	170	7.4	4,256	57.30	2,438

<sup>&</sup>lt;sup>1</sup> Includes custom slaughter for home use on farms where produced and out-of-State sales of cattle and calves, but excludes inter-farm sales.

 $<sup>^{2}\,\</sup>mathrm{Sum}$  of county estimates may not add to State total due to rounding.

<sup>&</sup>lt;sup>3</sup>Excludes custom slaughter for use on farms where produced.

<sup>&</sup>lt;sup>4</sup>Prices are equivalent delivered slaughterhouse for sales on county of production and delivered shipper's dock for interisland and out-of-State sales.

### CATTLE: Number of cattle sold, pounds, price, and value, State of Hawaii, 1997-2001

Year	Number sold <sup>1</sup> Pounds sold (live weight) <sup>2</sup>		Farm price (live weight)	Value of sales
	1,000 head	1,000 pounds	Dollars per hundredweight	1,000 dollars
1997	24	20,930	37.70	7,891
1998	27	23,660	37.30	8,825
1999	21	17,400	36.00	6,264
2000	27	22,360	38.20	8,542
2001	17	14,720	41.30	6,079

<sup>&</sup>lt;sup>1</sup> Includes custom slaughter for home use on farms where produced and out-of-State sales of cattle and calves, but excludes inter-farm sales.

### CALVES: Number of calves sold, pounds, price, and value, State of Hawaii, 1997-2001

Year	Number sold	Pounds sold (live weight)	Farm price (live weight)	Value of sales	
	1,000 head	1,000 pounds	Dollars per hundredweight	1,000 dollars	
1997	34	14,960	43.00	6,433	
1998	40	16,400	49.00	8,036	
1999	53	20,670	51.00	10,542	
2000	46	17,480	61.00	10,663	
2001	42	16,800	71.00	11,928	

### CATTLE AND CALVES: Inventory and disposition, State of Hawaii, 1997-2001

Year	Inventory beginning January 1	Calf crop	Inshipments	Marketings	Farm slaughter	Deaths	Inventory January 1 following year
				1,000 head			
1997	172	77	*	58	1	10	180
1998	180	73	*	67	1	12	173
1999	173	73	*	74	1	7	164
2000	164	69	*	73	1	9	150
2001	150	66	*	59	*	5	152

<sup>\*</sup> = Less than 500.

### CATTLE AND CALVES: Exports, State of Hawaii, 1997-2001

Year	Total	Cattle 1	Calves <sup>2</sup>	Steers	Heifers
			1,000 head		
1997	39	5	34	25	14
1998	44	4	40	25	19
1999	57	4	53	33	24
2000	51	5	46	30	21
2001	46	4	42	27	19

<sup>&</sup>lt;sup>1</sup>500 pounds or more.

<sup>&</sup>lt;sup>2</sup>Excludes custom slaughter for use on farms where produced.

<sup>&</sup>lt;sup>2</sup>499 pounds or less.

	CATTLE: Commercial slaughter and farm price, State of Hawaii, 1997-2001 <sup>1</sup>												
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
Number of	head <sup>2</sup> -	- 1,000 h	nead										
1997	1.8	1.4	1.7	1.7	1.5	1.4	1.5	1.7	1.6	1.7	1.5	1.6	19.2
1998	1.6	1.7	1.7	1.6	1.5	1.5	1.7	1.4	1.5	1.5	1.2	1.2	18.2
1999	1.2	1.3	1.5	1.4	1.4	1.4	1.5	1.8	1.5	1.5	1.5	1.5	17.5
2000	1.4	1.3	1.4	1.4	1.8	1.6	1.6	1.5	1.3	1.3	1.2	1.1	17.0
2001	1.2	1.1	1.3	1.2	1.0	1.1	1.0	1.2	.8	1.1	.6	1.0	12.7
Pounds sla	aughtere	ed, dres	sed wei	ght <sup>23</sup> - 1	1,000 poi	unds							
1997	955	780	903	937	838	786	858	924	903	922	840	899	10,545
1998	861	897	945	872	808	821	892	782	806	822	673	684	9,862
1999	674	662	766	712	706	768	784	915	742	733	732	753	8,946
2000	699	671	738	713	894	831	809	781	693	693	632	658	8,810
2001	663	614	724	636	534	621	551	684	475	604	384	527	7,016
Average fa	Average farm price, dressed weight - cents per pound												
1997	65.0	63.0	67.0	67.0	67.0	64.0	68.0	66.0	67.5	64.0	66.0	67.0	66.0
1998	67.0	65.0	63.5	64.5	64.0	64.5	61.5	66.0	62.5	64.0	65.5	63.5	64.5

<sup>&</sup>lt;sup>1</sup> Includes custom slaughter for home use.

63.5

62.5

61.0

63.5

61.5

63.5

1999

2000

2001

62.5

60.5

61.5

64.0

63.0

61.0

63.5

60.0

63.5

63.5

62.0

64.5

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62.0

64.5

61.5

61.5

65.5

60.5

61.5

68.0

60.5

64.5

67.5

61.0

64.0

67.5

60.5

61.5

67.5

CATTLE: Local marketings and farm price, State of Hawaii, 1990-2001 1

	S	teers and heifers		Cows			
Year	Marketings	Avera	age price	Marketings	Average price		
	(dressed weight)	Live weight <sup>2</sup>	Dressed weight	(dressed weight)	Live weight <sup>2</sup>	Dressed weight	
	1,000 pounds	Cents per pound		1,000 pounds	Cents per pound		
1990	23,820	51.3	93.5	4,371	34.2	62.5	
1991	20,951	51.4	93.5	4,257	34.4	62.5	
1992	15,354	49.9	91.0	5,065	33.7	61.5	
1993	4,805	46.4	84.5	5,065	34.7	63.0	
1994	3,818	47.6	87.0	4,478	32.9	60.0	
1995	2,596	49.3	89.5	4,529	29.8	54.5	
1996	3,777	47.3	86.0	5,486	27.5	50.0	
1997	3,762	47.1	86.0	5,029	28.8	52.5	
1998	4,337	45.6	83.0	6,282	27.2	49.5	
1999	2,980	44.8	81.5	4,620	27.6	50.0	
2000	5,308	44.3	80.5	4,501	27.4	50.0	
2001	2,692	50.9	92.5	3,060	28.7	52.5	

<sup>&</sup>lt;sup>1</sup> Excludes out-of-State shipments.

77

62.0

62.0

64.5

<sup>&</sup>lt;sup>2</sup>Sum of monthly estimates may not add to annual total due to rounding.

<sup>&</sup>lt;sup>3</sup> To convert dressed weight to live weight, divide dressed weight by 0.549 or multiply by a factor of 1.8215.

<sup>&</sup>lt;sup>2</sup>To convert live weight to dressed weight, divide live weight by 0.549 or multiply by a factor of 1.8215.

## EQUINE: January 1 inventory, number sold, and value, State of Hawaii, 1998-2002

Year	Inventory	Number sold	Value of Sales		
	1,000 head	1,000 head	1,000 dollars		
1998 1999 2000 <sup>1</sup> 2001 <sup>1</sup> <b>2002</b> <sup>1</sup>	7.0 7.0	.4 .4	800 900		

<sup>&</sup>lt;sup>1</sup>Next survey 2002 Agricultural Census.

HONEY: Number of operations, colonies, honey and beeswax production, price, and value, State of Hawaii, 1997-2001

	and taile, clair of flatterin, four zoo.												
Year	Opera-	Number of	Yield per	Produ	ction	Average	e price 1	Valu produ					
real	tions	colonies	colony (honey)	Honey (extracted) Beesway		Honey (extracted)	Beeswax	Honey (extracted)	d) Beeswax				
	Number	Thousands	Pounds	1,000 إ	pounds	Cents per p	ound	1,000	dollars				
1997	23	9	146	1,314	17	86	224	1,130	38				
1998	29	8	118	944	15	75	173	708	26				
1999	28	8	80	640	15	80	173	512	26				
2000	33	7	112	784	8	82	200	643	16				
2001	30	8	87	696	6	85	233	592	14				

<sup>1</sup> Average of unprocessed bulk and processed packaged honey sold at wholesale and processed packaged honey sold at retail by farmers.

### SHEEP AND LAMBS: January 1 inventory by class, State of Hawaii, 1998-2002

	All sheep		E	Breeding			Market		Lamb	
Year	and lambs	Total	Ewes 1 year +	Rams 1 year +	Replacement lambs	Total	Lambs	Sheep	crop	
				1	1,000 head				_	
1998	23	16	11	4	1	7	5	2	5	
1999	19	13	9	3	1	6	5	1	5	
2000	18	13	9	3	1	5	4	1	5	
2001	20	13	7	3	3	7	5	2	5	
2002	20	14	6	3	5	6	4	2	5	

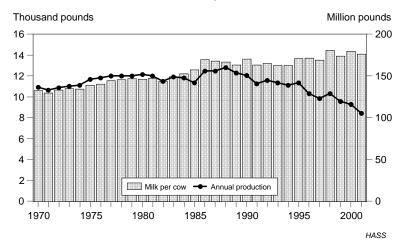
MILK: Number of operations, number of milk cows, production, sales, price, and value, by counties, 1997-2001

Year	Operations <sup>1</sup>	Annual average milk cows	Milk per cow	Production <sup>2</sup> Sold <sup>2</sup>		Average price	Value of sales
	Num	ber	Pounds	Million pou	nds	Dollars per hundredweight	1,000 dollars
State							
1997	50	9,100	13,516	123.0	119.3	24.71	29,479
1998	50	8,900	14,494	129.0	126.3	26.36	33,293
1999	50	8,600	13,919	119.7	118.0	26.50	31,270
2000	50	8,100	14,358	116.3	114.7	24.50	28,102
2001	50	7,500	14,107	105.8	104.1	25.50	26,546
Counties:							
Hawaii/Ka	auai/Maui ³						
1997	40	3,600	12,639	45.5	42.9	23.95	10,275
1998	40	3,800	12,868	48.9	46.5	24.63	11,455
1999	40	2,900	11,655	33.8	32.3	24.70	7,970
2000	40	2,900	13,138	38.1	36.6	23.80	8,715
2001	40	3,000	11,300	33.9	32.4	23.55	7,630
Honolulu							
1997	10	5,500	14,091	77.5	76.4	25.14	19,204
1998	10	5,100	15,706	80.1	79.8	27.37	21,838
1999	10	5,700	15,070	85.9	85.7	27.20	23,300
2000	10	5,200	15,038	78.2	78.1	24.80	19,387
2001	10	4,500	15,978	71.9	71.7	26.40	18,916

<sup>&</sup>lt;sup>1</sup> Includes commercial, licensed dairies as well as farms with only a few cows.

<sup>3</sup> Kauai and Maui combined with Hawaii to avoid disclosure of individual operations.

MILK: Production and Milk per Cow Annual Basis, State of Hawaii, 1970-2001



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<sup>&</sup>lt;sup>2</sup> Difference between "Production" and "Sold" is milk used on farms for human consumption, fed to calves or other uses.

MIL	(: Num	ber of	cows,	milk p	roduc	tion, p	rice, a	nd mil	k fat, S	tate of	Hawa	ii, 1997	<b>'-2001</b>
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
Average r	number o	of milk c	ows on		uring m	onth - 1	,000 hea	ad					
1997	9.6	9.4	9.4	9.1	9.1	9.0	9.0	9.0	8.8	8.8	8.9	8.9	9.1
1998	9.1	9.0	9.0	8.9	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.7	8.9
1999	8.7	8.6	8.6	8.6	8.5	8.5	8.5	8.6	8.6	8.6	8.6	8.5	8.6
2000	8.4	8.4	8.5	8.5	8.5	8.3	8.2	8.0	7.9	7.7	7.7	7.5	8.1
2001	7.7	7.7	7.5	7.5	7.5	7.6	7.5	7.4	7.4	7.4	7.3	7.4	7.5
Average r	nonthly	product	ion per	all cows	s in hero	d - poun	ds						
1997	1,105	1,075	1,225	1,210	1,265	1,190	1,200	1,120	1,025	1,035	1,020	1,065	13,516
1998	1,100	1,110	1,280	1,325	1,400	1,320	1,350	1,215	1,100	1,125	1,090	1,150	14,494
1999	1,150	1,095	1,280	1,255	1,295	1,260	1,260	1,200	1,080	1,035	1,000	1,060	13,919
2000	1,095	1,070	1,200	1,210	1,330	1,275	1,305	1,250	1,150	1,130	1,090	1,175	14,358
2001	1,170	1,115	1,345	1,295	1,295	1,250	1,240	1,205	1,055	1,095	1,025	1,025	14,107
Milk prod	uction -	million p	ounds										
1997	10.6	10.1	11.5	11.0	11.5	10.7	10.8	10.1	9.0	9.1	9.1	9.5	123.0
1998	10.0	10.0	11.5	11.8	12.3	11.6	11.9	10.7	9.7	9.9	9.6	10.0	129.0
1999	10.0	9.4	11.0	10.8	11.0	10.7	10.7	10.3	9.3	8.9	8.6	9.0	119.7
2000	9.2	9.0	10.2	10.3	11.3	10.6	10.7	10.0	9.1	8.7	8.4	8.8	116.3
2001	9.0	8.6	10.1	9.7	9.7	9.5	9.3	8.9	7.8	8.1	7.5	7.6	105.8
Average p	rice for	milk sol	ld to nla	nts - do	llars ner	· hundrei	dweiaht						
1997	23.31	23.33	23.32	24.85	25.89	24.79	24.91	24.50	24.45	25.63	25.74	26.11	24.71
1998	25.93	26.08	26.09	26.11	26.04	24.49	25.12	26.72	26.60	27.77	27.87	28.32	26.36
1999	28.40	29.20	28.80	25.20	25.30	25.30	25.12	25.50	25.60	27.80	26.90	25.10	26.50
2000	23.80	23.90	23.50	24.40	24.70	24.80	25.20	24.70	24.70	24.70	24.60	25.00	24.50
<b>2001</b>	25.90	24.50	25.00	24.90	25.50	25.80	26.20	26.00	26.10	26.40	25.80	24.10	<b>25.50</b>
Average r	nilk fat f				•								
1997	3.41	3.41	3.38	3.46	3.40	3.35	3.39	3.41	3.42	3.46	3.45	3.48	3.42
1998	3.38	3.38	3.37	3.39	3.37	3.34	3.40	3.46	3.49	3.52	3.54	3.51	3.43
1999	3.52	3.45	3.44	3.49	3.48	3.41	3.47	3.45	3.53	3.54	3.53	3.57	3.49
2000	3.58	3.53	3.47	3.52	3.45	3.42	3.38	3.43	3.46	3.50	3.50	3.46	3.47
2001	3.46	3.45	3.43	3.36	3.41	3.38	3.39	3.42	3.43	3.45	3.52	3.50	3.43

## HOGS AND PIGS: December 1 inventory by classes and weight, State of Hawaii, 1997-2001

	All bogs				Market		
Year	All hogs and pigs	Breeding	Total	Under 60 lbs.	60-119 lbs.	120-179 lbs.	180 lbs. and over
	•	•		1,000 head			_
1997	29	5	24	11	6	5	2
1998	29	5	24	10	7	4	3
1999	28	5	23	9	7	4	3
2000	26	5	21	10	6	3	2
2001	27	6	21	9	6	4	2

## HOGS AND PIGS: December 1 inventory by class, by counties, 1997-2001

Year	All hogs and pigs	Breeding	Total market	Year	All hogs and pigs	Breeding	Total market
		1,000 head			1,000	head	
Counties:							
Hawaii				Kauai			
1997	2.2	.4	1.8	1997	3.5	.4	3.1
1998	2.1	.3	1.8	1998	3.5	.4	3.1
1999	2.2	.5	1.7	1999	2.6	.3	2.3
2000	4.0	.8	3.2	2000	1.8	.3	1.5
2001	4.4	.7	3.7	2001	2.0	.4	1.6
Honolulu				Maui			
1997	18.4	3.6	14.8	1997	4.9	.8	4.1
1998	18.3	3.3	15.0	1998	5.1	.8	4.3
1999	18.4	3.4	15.0	1999	4.8	1.1	3.7
2000	15.0	3.0	12.0	2000	5.2	1.1	4.1
2001	14.8	3.0	11.8	2001	5.8	1.7	4.1

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HOGS: Number of operations, number and pounds sold, price, and value, by counties, 1997-2001

Year	Operations	Number sold <sup>1</sup>	Pounds sold (live weight) <sup>2</sup>	Farm price (live weight)	Value of sales
	Number	1,000 head	1,000 pounds	Dollars per hundredweight	1,000 dollars
	. tam.or	i,coo noaa	i,coo poundo	nana.can eigin	i,eee aenare
State <sup>3</sup>					
1997	250	33	6,105	80.30	4,902
1998	250	35	6,300	83.10	5,235
1999	230	35	6,300	80.50	5,072
2000	230	31	5,580	79.30	4,425
2001	230	31	5,425	83.80	4,546
Counties:					
Hawaii					
1997	90	2.7	525	77.00	404
1998	80	2.8	528	79.50	420
1999	70	3.8	734	77.50	569
2000	70	3.3	617	77.00	475
2001	70	3.3	574	79.50	456
Honolulu					
1997	70	20.7	3,795	80.00	3,036
1998	80	23.4	4,132	83.50	3,451
1999	70	22.1	3,880	81.00	3,143
2000	70	18.9	3,296	80.00	2,637
2001	<b>70</b>	18.9	3,390	85.00	2,882
Kauai					
1997	30	2.9	541	84.00	454
1998	40	3.5	634	85.00	539
1999	30	3.5	575	81.00	466
2000	30	2.9	491	77.00	378
2001	30	3.2	456	81.00	369
Maui					
1997	60	6.7	1,244	81.00	1,008
1997	50	5.3	1,006	82.00	825
1999	60	5.6	1,111	80.50	894
2000	60	5.9	1,176	79.50	935
<b>2000</b>	<b>60</b>	5.6	1,00 <b>5</b>	<b>83.50</b>	839

<sup>&</sup>lt;sup>1</sup> Excludes interfarm sales; includes custom slaughter for home use; includes direct sales on farms to consumers.

 $<sup>^{\</sup>rm 2}\,\textsc{Excludes}$  custom slaughter for use on farms where produced and interfarm sales.

<sup>&</sup>lt;sup>3</sup> Sum of county estimates may not add to State total due to rounding. Sales and value data are for the 12-month period, December of the previous year through November of the following year.

	HOGS: Commercial slaughter and farm price, State of Hawaii, 1997-2001												
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
Number o		•											
1997	3.6	3.1	3.2	3.4	3.4	3.4	3.5	3.2	3.3	3.5	2.9	4.1	40.5
1998	3.3	2.8	3.0	3.1	3.1	3.1	3.3	2.9	2.2	3.1	2.8	3.7	36.5
1999	2.8	2.9	3.0	3.1	2.9	3.0	3.1	2.9	3.0	2.9	2.9	3.6	36.0
2000	2.9	2.8	3.0	2.7	3.2	3.2	2.7	3.1	2.8	3.0	2.9	3.6	35.8
2001	2.9	2.6	2.8	2.8	3.1	3.0	3.1	3.3	2.5	2.8	2.8	3.2	34.9
Pounds sl	aughter	ed, dres	sed wei	ght <sup>123</sup> -	1,000 p	ounds							
1997	529	456	482	510	505	515	522	502	507	521	427	604	6,080
1998	491	419	455	470	472	452	504	440	336	465	434	540	5,477
1999	437	422	459	464	429	458	488	465	454	456	443	552	5,525
2000	440	407	467	414	490	504	428	486	437	464	441	556	5,531
2001	437	408	432	429	460	470	458	490	379	446	446	486	5,340
All hogs, a	average	farm pr	ice. dre	ssed we	eiaht <sup>4</sup> - 6	cents pe	r pound						
1997	108.5	107.0	107.0	104.5	103.0	104.0	107.0	106.5	109.0	109.5	107.5	110.5	107.0
1998	110.5	111.0	111.0	111.0	108.0	110.5	109.5	111.5	111.5	111.5	112.5	110.5	111.0
1999	108.5	108.0	107.0	107.0	105.0	106.5	107.0	106.5	107.5	107.5	106.0	106.5	107.5
2000	106.0	106.0	105.0	105.0	105.5	105.5	105.0	106.0	105.5	108.0	105.5	113.5	106.0
2001	111.5	111.5	112.0	111.5	111.0	112.0	111.0	111.5	111.5	111.5	112.0		111.5
Market ho	gs, aver	age farı	n price,	dresse	d weigh	t⁴ - cent	s per po	und					
1997	112.5	109.5	112.0	109.5	110.5	112.5	112.0	111.5	111.0	112.5	112.5	112.5	111.5
1998	113.0	113.0	113.5	113.5	113.5	113.5	114.0	114.0	113.5	114.0	114.5	112.0	113.5
1999	110.5	109.5	110.5	110.0	108.5	110.5	109.5	110.0	109.0	109.5	108.5	109.0	110.0
2000	109.0	109.0	108.0	109.0	109.0	109.0	109.0	110.0	110.0	111.5	110.0	117.0	109.5
2001	115.5	115.5	115.0	115.0	114.0	115.0	115.5	115.5	115.5	115.5	115.5		115.5

<sup>&</sup>lt;sup>1</sup> Excludes non-inspected farm slaughter; includes custom slaughter and live hog inshipments from the mainland for slaughter.

## HOGS AND PIGS: Inventory and disposition, State of Hawaii, 1997-2001

				•			
Year	Inventory December 1 previous year  Annu pig cre		Inshipments <sup>1</sup>	Marketings	Farm slaughter	Deaths	Inventory December 1
				1,000 head			
1997	28	39	*	33	1	4	29
1998	29	39	*	35	1	3	29
1999	29	39	*	35	1	4	28
2000	28	36	*	31	1	6	26
2001	26	37	*	31	1	4	27

<sup>\* =</sup> Less than 500 head.

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 $<sup>^{\</sup>rm 2}\,\mbox{Sum}$  of monthly estimates may not add to annual total due to rounding.

<sup>&</sup>lt;sup>3</sup>To convert dressed weight to live weight, divide dressed weight by 0.75 or multiply by a factor of 1.3333.

<sup>&</sup>lt;sup>4</sup> Annual average price is for the 12-month period, December of the previous year through November of the following year.

<sup>&</sup>lt;sup>1</sup> Excludes live hogs brought in for immediate slaughter.

Egg production for 2001 totaled 129.4 million eggs, 9 percent below 2000 production of 142.9 million, the eleventh consecutive year of decline, and the lowest since 1960. The average number of layers on hand during 2001 was 587,000, the lowest since 1960, and the thirteenth consecutive year of decline. Cash receipts from the sale of eggs during 2001 was \$9.6 million, 9 percent below 2000. The total number of egg-type chickens on hand in Hawaii on December 1, 2001 was 659,000 birds, 9 percent below 2000. The 659,000 birds consisted of 554,000 layers and 105,000 non-laying pullets. The 554,000 layers was 9 percent less than a year ago.

CHICKENS: December 1 inventory by class, by counties, 1997-2001

	O. HOILE ITO	2000		, D, U.GO.	o, by country	<b></b>	•
	All chickens	Nι	ımber of layers	3	Non-layir	ng pullets	Other
Year	(excluding broilers)	Hens 1 Pullets Under Total Over 3 Months		Under 3 months	chickens (excluding broilers)		
				Thousands			
State							
1997	863	465	263	728	55	80	*
1998	747	408	199	607	77	63	*
1999	721	404	184	588	70	63	*
2000	722	435	174	609	56	57	*
2001	659	373	181	554	50	55	*
Counties:	:/84:1						
Hawaii/Ka							
1997	150	80	64	144	6	0	*
1998	146	82	58	140	0	6	*
1999	153	92	56	148	0	5	*
2000	152	95	53	148	0	4	*
2001	146	77	65	142	0	4	*
Honolulu							
1997	713	385	199	584	49	80	*
1998	601	326	141	467	77	57	*
1999	568	312	128	440	70	58	*
2000	570	340	121	461	56	53	*
2001	513	296	116	412	50	51	*

<sup>\* =</sup> Less than 500.

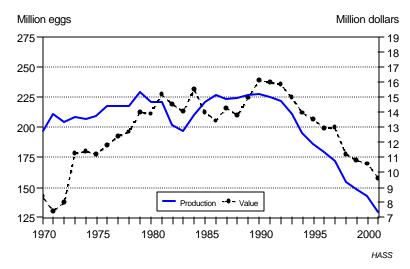
<sup>&</sup>lt;sup>1</sup> Kauai and Maui combined with Hawaii to avoid disclosure of individual operations.

EGGS: December 1 number of operations, number of layers, production, price, and value, by counties, 1997-2001 <sup>1</sup>

Year	Operations	of layers		Production <sup>2</sup>	Average price <sup>3</sup>	Value of sales
		1,000		Million	Cents	1,000
	Number	birds	Eggs	eggs	per dozen	dollars
State 4						
1997	55	724	238	172.0	90.6	12,986
1998	55	632	244	154.4	87.2	11,220
1999	55	615	242	149.0	87.0	10,803
2000	55	604	237	142.9	89.0	10,598
2001	55	587	220	129.4	89.4	9,640
Counties:						
Hawaii/Kau	uai/Maui ⁵					
1997	36	144	237	34.1	105.0	2,984
1998	38	140	245	34.6	105.0	3,027
1999	40	143	240	34.4	104.0	2,982
2000	40	150	239	35.9	104.5	3,127
2001	40	148	222	32.9	108.5	2,974
Honolulu						
1997	19	580	238	137.9	86.5	10,002
1998	17	492	244	119.8	82.1	8,193
1999	15	472	243	114.6	81.9	7,821
2000	15	454	236	107.0	83.8	7,471
2001	15	439	220	96.5	82.9	6,666

<sup>&</sup>lt;sup>1</sup> Annual number of layers, egg production, sales, price, and value are for the 12-month period, December of the previous year through November of the following year.

## EGGS: Production and Value of Sales, State of Hawaii, 1970-2001



<sup>&</sup>lt;sup>2</sup>Home consumption less than 0.5 million eggs included.

<sup>&</sup>lt;sup>3</sup> Equivalent delivered processing plant.

<sup>&</sup>lt;sup>4</sup> Sum of county estimates may not add to State total due to rounding.

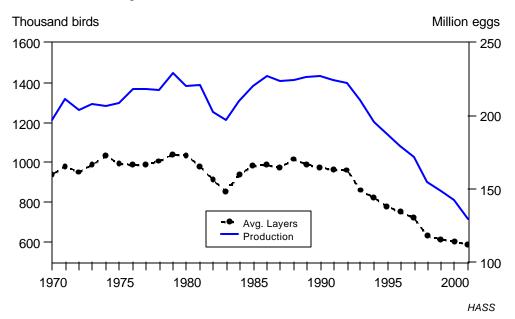
<sup>&</sup>lt;sup>5</sup> Kauai and Maui combined with Hawaii to avoid disclosure of individual operations.

EGGS: Number of layers, production, and price, State of Hawaii, 1997-2001

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average 1
Average n	umber c	of layers	on han	d durin	g month	1,000	layers						
1997	737	723	736	733	719	725	708	711	711	716	732	715	724
1998	673	638	642	638	616	600	581	601	629	632	623	604	632
1999	614	629	641	643	630	622	604	606	599	594	598	580	615
2000	580	596	615	615	607	610	603	607	604	612	621	616	604
2001	615	609	613	602	595	591	564	561	561	560	563		587
Egg produ	ıction <sup>2</sup> -	million e	ggs										
1997	15.0	13.7	15.9	15.0	14.6	14.2	14.3	13.9	13.3	13.5	13.1	13.4	172.0
1998	13.5	12.0	13.3	12.8	13.2	12.7	12.6	13.0	12.7	12.7	12.5	12.8	154.4
1999	12.7	11.8	13.3	13.1	13.1	12.5	12.2	11.9	11.9	12.1	11.6	12.1	149.0
2000	12.2	11.1	12.8	12.5	12.6	11.8	12.2	12.0	11.0	11.3	11.3	11.7	142.9
2001	11.7	10.3	11.5	11.4	11.3	10.9	10.9	10.4	9.8	9.7	9.8		129.4
Average f	arm pric	<b>e</b> ³ - cen	ts per do	zen									
1997	90.5	90.0	91.5	90.5	91.0	90.5	90.0	90.0	86.5	88.5	90.0	92.0	90.6
1998	92.0	93.0	93.5	91.5	85.5	83.0	83.0	84.5	82.0	82.0	83.5	88.0	87.2
1999	86.5	88.0	87.0	87.5	88.5	86.5	87.5	84.0	87.0	87.5	85.5	89.5	87.0
2000	89.5	91.0	90.5	90.5	91.5	88.5	90.0	88.0	86.5	85.5	86.5	88.0	89.0
2001	89.0	89.0	89.5	88.5	88.5	89.5	89.5	90.0	90.0	90.5	91.0		89.4

<sup>&</sup>lt;sup>1</sup> Annual data are for the 12-month period, December of the previous year through November of the following year.

## CHICKENS: Production and Average Number of Layers, State of Hawaii, 1970-2001



<sup>&</sup>lt;sup>2</sup>Sum of monthly estimates may not add to annual total due to rounding.

<sup>&</sup>lt;sup>3</sup> Equivalent delivered processing plant.

- ! AQUACULTURE
- ! AGRICULTURAL LABOR
- ! FERTILIZER CONSUMPTION



## AQUACULTURE: Number of operations, production, and value, by counties, 1997-2001

State		Number	Production			Value				
State	Year		Shellfish 1	Finfish	Algae	Shellfish	Finfish	Algae	Other <sup>2</sup>	Total
1997 110 NA NA NA NA 4,960.0 950.0 8,295.0 2,395.0 16 1998 105 700.4 218.0 1,324.7 4,959.9 958.0 8,294.9 2,406.9 16 1999 100 996.0 215.0 1,193.0 6,393.0 1,010.0 7,883.0 2,816.0 18 2000 85 1,190.0 440.0 1,268.0 7,677.0 2,302.0 8,447.0 3,744.0 22 2001 80 1,166.0 467.0 7,464.0 2,404.0 9,684.0 2,648.0 22  Counties:  Hawaii  1997 NA			1	,000 pounds			1	,000 dollars		
1998	State									
1999 100 996.0 215.0 1,193.0 6,393.0 1,010.0 7,883.0 2,816.0 18 2000 85 1,190.0 440.0 1,268.0 7,677.0 2,302.0 8,447.0 3,744.0 22 2001 80 1,166.0 467.0 7,464.0 2,404.0 9,684.0 2,648.0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1997					4,960.0	950.0	8,295.0	2,395.0	16,600.0
2000								8,294.9		16,619.7
2001 80 1,166.0 467.0 7,464.0 2,404.0 9,684.0 2,648.0 22  Counties:  Hawaii  1997 NA	1999	100	996.0	215.0	1,193.0	6,393.0	1,010.0	7,883.0	2,816.0	18,102.0
Counties: Hawaii  1997 NA	2000	85	1,190.0	440.0	1,268.0	7,677.0	2,302.0	8,447.0	3,744.0	22,170.0
Hawaii	2001	80	1,166.0	467.0		7,464.0	2,404.0	9,684.0	2,648.0	22,200.0
1998		<b>s:</b>								
1998	1997	NA	NA	NA	NA	NA	NA		NA	13,380.0
2000 37	1998	44	485.3	44.8	3	3,647.5	3	3	1,476.4	13,382.5
2001       33       425.0       3 3,061.0       3 9,021.0       3 166         Honolulu         1997       NA       NA <td>1999</td> <td>42</td> <td>475.0</td> <td>86.0</td> <td>1,022.0</td> <td>3,513.0</td> <td>562.0</td> <td>7,473.0</td> <td>1,829.0</td> <td>13,377.0</td>	1999	42	475.0	86.0	1,022.0	3,513.0	562.0	7,473.0	1,829.0	13,377.0
Honolulu  1997 NA	2000	37	450.0	3	1,035.0	3,571.0	3	7,953.0	3	16,009.0
1997 NA 1998 46 3 130.5 3 1,013.4 3 3 279.5 2 1999 44 222.0 114.0 3 1,370.0 408.0 3 241.0 2 2000 35 359.0 72.0 3 2,123.0 349.0 3 3 2 2001 32 304.0 95.0 1,843.0 491.0 3 3 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2001	33	425.0	3		3,061.0	3	9,021.0	3	16,198.0
1998	Honolu	lu								
1998			NA	NA	NA	NA	NA	NA	NA	2,120.0
1999			3		3		3	3		2,099.6
2000 35 359.0 72.0 3 2,123.0 349.0 3 3 2 2001 32 304.0 95.0 1,843.0 491.0 3 2  Kauai  1997 NA			222.0		3		408.0	3		2,333.0
ZO01     32     304.0     95.0      1,843.0     491.0     3     3       Kauai       1997     NA     NA     NA     NA     NA     NA     NA     NA     NA       1998     3     3     3     3     3     3     3       1999     4     3     3     3     3     3     3       2000     4     3     3     3     3     3       2001     4     3     3     3     3     3       Maui       1997     NA     NA     NA     NA     NA     NA     NA     NA					3			3	3	2,985.0
1997 NA								3	3	2,815.0
1997 NA	Kauai									
1998 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		NA	NA	NA	NA	NA	NA	NA	NA	3
1999 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3				3			3		3	3
2000 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3			3	3	3	3	3	3		3
<b>2001 4</b> <sup>3</sup> <sup>3</sup> <sup>3</sup> <sup>3</sup> <sup>3</sup> <sup>3</sup> <sup>3</sup> <b>Maui</b> 1997 NA			3	3		3	3		3	3
1997 NA NA NA NA NA NA NA			3	3		3	3		3	3
1997 NA NA NA NA NA NA NA	Maui									
		NΑ	NΔ	NΑ	NΑ	NΑ	NΑ	NΔ	NΑ	3
1998 12	1998	12	3	3	3	3	3	3	3	3
1999 10 3 3 3 3 3 3 3			3	3	3	3	3	3	3	3
2000 9 3 3 3 3 3 3 3			3	3	3	3	3	3	3	3
<b>2001</b> 11 <sup>3</sup> <sup>3</sup> <sup>3</sup> <sup>3</sup> <sup>3</sup>			3	3		3	3	3	3	3

NA = Not available. - - Not applicable.

<sup>1</sup> Some shellfish products sold by pieces, pounds not given.

<sup>2</sup> Non-food products: ornamental fish, seed stock, other. Items not sold by weight.

<sup>&</sup>lt;sup>3</sup> Data not shown separately to avoid disclosure of individual operations but combined and included in the State total.

Source: 1995, 1996, and 1997 Hawaii State Department of Agriculture, Aquaculture Development Program.

## AGRICULTURAL LABOR: Workers on farms, annual and quarterly averages, State of Hawaii, 1997-2001 <sup>1</sup>

	Total	Hired workers by type of farm				
Year	Self-employed farm operators	Unpaid workers <sup>2</sup>	Hired workers <sup>3</sup>	Sugar	Pineapple	Other
-		•		•		-
1997	2,700	1,200	7,000	1,200	1,300	4,500
1998	2,700	1,200	7,400	1,200	1,200	5,000
1999	3,000	1,200	7,600	1,200	1,300	5,200
2000	3,100	1,000	7,800	1,000	1,200	5,600
2001	3,300	1,100	7,400	800	1,200	5,500
January	3,500	1,300	7,400	750	1,150	5,500
April	3,200	1,100	7,100	700	1,100	5,300
July	3,400	900	7,100	750	1,250	5,100
October	3,100	1,000	7,900	800	1,150	5,950

<sup>&</sup>lt;sup>1</sup> Averages are based on data collected from the January, April, July, and October surveys.

## AGRICULTURAL LABOR: Annual average number of workers on farms, by counties, 1997-2001 <sup>1</sup>

Year	Self-employed farm operators	Unpaid workers <sup>2</sup>	Hired workers	Year	Self-employed farm operators	Unpaid workers <sup>2</sup>	Hired workers
Counties:						•	•
Hawaii				Kauai			
1997	1,800	700	2,450	1997	200	100	850
1998	1,750	650	2,550	1998	200	100	800
1999	1,850	600	2,400	1999	250	100	900
2000	1,800	550	2,700	2000	300	50	950
2001	1,950	550	2,650	2001	350	150	650
Honolu	lu			Maui			
1997	500	300	1,900	1997	300	100	1,850
1998	450	250	2,100	1998	350	150	1,950
1999	500	300	2,100	1999	450	200	2,200
2000	500	200	2,200	2000	500	150	2,000
2001	550	250	2,300	2001	500	150	1,800

<sup>&</sup>lt;sup>1</sup> Averages are based on data collected from the January, April, July, and October surveys.

 $<sup>^{\</sup>rm 2}$  Includes family members and others working 15 or more hours per week.

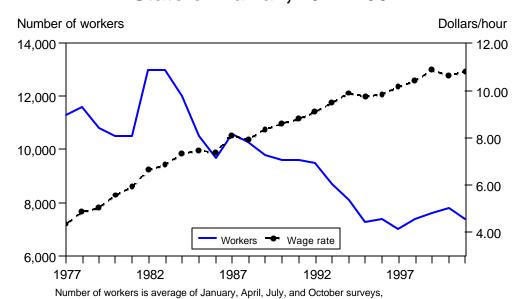
<sup>&</sup>lt;sup>3</sup> Sum of hired workers by type of farm may not add to hired workers total due to rounding.

<sup>&</sup>lt;sup>2</sup> Includes family members and others working 15 or more hours per week.

## AGRICULTURAL LABOR: Wage rates by type of work, annual and quarterly averages, State of Hawaii, 1997-2001

	Type of work performed							
Year	All	farms	Farms with 1-9 workers					
	Field/livestock	All hired workers	Field/livestock	All hired workers				
1997	8.83	10.15	6.82	7.65				
1998	8.97	10.41	7.27	8.03				
1999	9.38	10.87	7.76	8.63				
2000	9.05	10.62	7.69	8.65				
2001	9.25	10.80	8.15	8.86				
January	9.10	10.66	7.92	8.65				
April	9.03	10.67	7.77	8.30				
July	9.60	11.21	8.38	9.12				
October	9.39	10.78	8.59	9.39				

## Hired Work Force and Average Wage Rate, State of Hawaii, 1977-2001



except 1981 January and April, 1982-83 July and 1984 July and October.

HASS

FERTILIZER: Commercial consumption, State of Hawaii, 1997-2001

Turno	Year ending June 30						
Туре	1997	1998	1999	2000	2001 <sup>1</sup>		
Consumption of fertilizers by cla	ss - Short tons of	f material					
Total fertilizer	109,478	112,762	98,103	90,000	90,000		
Total dry single-nutrient	28,423	29,275	25,470	23,366	23,366		
Total dry multiple-nutrient	32,936	33,924	29,514	27,076	27,076		
Fluid single-nutrient	25,583	26,350	22,925	21,031	21,031		
Fluid multiple-nutrient	18,392	18,943	16,481	15,119	15,119		
Total single-nutrient	54,005	55,625	48,394	44,397	44,397		
Total multiple-nutrient	51,328	52,868	45,995	42,196	42,196		
Total N	16,828	17,333	15,080	13,834	13,834		
N in multi-nutrients	6,786	6,990	6,081	5,579	5,579		
Total available P <sub>2</sub> 0 <sub>5</sub>	5,719	5,890	5,125	4,701	4,701		
Available P <sub>2</sub> 0 <sub>5</sub> in multi-nutrients	5,608	5,776	5,025	4,610	4,610		
Total K₂0	12,991	13,381	11,641	10,680	10,680		
K₂0 in multi-nutrients	9,006	9,276	8,071	7,404	7,404		
Total plant nutrients	35,538	36,604	31,845	29,215	29,215		
Average analysis	33.7	33.7	33.7	33.7	33.7		
Total in multi-nutrients	21,400	19,177	19,177	17,593	17,593		
Selected single-nutrient material	<b>s</b> - Short tons of <i>i</i>	material					
Nitrogen solutions	18,236	18,783	16,341	14,991	14,991		
Urea	2,480	2,554	2,222	2,038	2,038		
Ammonium sulfate	15,285	15,744	13,697	12,566	12,566		
Secondary and micronutrients	4,144	4,269	3,714	3,407	3,407		
Consumption of multiple-nutrien	t fertilizers - Sho	ort tons of material					
N-P-K	45,031	46,382	40,353	37,019	37,019		
N-P	6,297	6,485	5,642	5,176	5,176		

Source: The Association of American Plant Food Control Officials and the Fertilizer institute.

<sup>1</sup> An estimate of the total tonnage for 2001 was set equal to 100% of the 2000 tonnage. The total tonnage was proportioned into the tonnage for the individual materials and grades in the same ratio as in the original TVA estimate. The specific materials and grades reported are based on a TVA estimate from about 1989 that have been carried forward and adjusted each year as above.

#### **DEFINITION OF TERMS**

**AGRICULTURE** entails all operations performed on a "farm" in connection with planting, growing, and harvesting of crops; raising and feeding of livestock and poultry, and management. All operations in connection with preparation of farm products for market where the preparation does not alter the form of the product and transportation to the first delivery point. In Hawaii, the first delivery point is defined as the processing plant or packinghouse door or other receivers' establishment for marketings on the island of production. For off-island marketings, the first delivery point is generally the shipper's warehouse.

**FARM** is a place with estimated (or expected) annual sales of agricultural products of at least \$1,000.

**CROP PRODUCTION** is the estimated amount of crop harvested and transferred at the first delivery point. Production estimates of vegetables and fruits include the quantity for fresh market and processing use.

**ACREAGE IN CROP** is the total acreage standing in a specific crop regardless of age or condition unless it has been declared abandoned by the operator.

**ACREAGE HARVESTED** is the total area harvested or partially harvested during the reporting period. A permanent or semi-permanent planting that was harvested for only a portion of the year is counted in its entirety. Acreage lost before maturity due to natural or economic factors is not included. Acreage harvested and planted repeatedly during the year is counted each time.

**YIELD** is the average production per acre of merchantable quality harvested and sold or utilized. This is derived by dividing total production by harvested acres.

**LIVESTOCK OPERATION** is defined as a place that has one or more head of the species on hand at any time during the year. It does not have to meet the definition of a farm.

**LIVESTOCK PRODUCTION** is the estimated amount of livestock and livestock products sold. This includes allowance for amounts used on farms where produced.

**FARM PRICE** is a computed price to value agricultural production which may or may not reflect the average price at which actual transfer of ownership took place but which is comparable with the definition of "agriculture". See "agriculture" for the definition of pricing point.

**MARKET SUPPLY** includes pounds of product sold in Hawaii to both Armed Forces and civilians (outshipments excluded). Direct inshipments to the Armed Forces are excluded.

#### SAMPLING METHODS AND ESTIMATION

The Hawaii Agricultural Statistics Service uses a variety of sampling techniques to produce current agricultural statistics about crops, livestock, prices, farm labor, and other information relating to the agricultural economy.

Data is collected, summarized and estimates are prepared. These estimates then pass through the Agricultural Statistics Board of the U. S. Department of Agriculture where, for major items, Hawaii estimates become part of National totals and enter the official data base for agriculture. National and State estimates are published according to a schedule set one year in advance.

The Hawaii Agricultural Statistics Service conducts many of its surveys by virtually complete **ENUMERATION** of certain parts of the population. This is unusual compared to procedures in other states but is feasible in Hawaii due to the relatively small size of certain categories of the farm universe or the extreme concentration of ownership.

**LIST SAMPLING** is a common means of data collection. Lists of farm operators are well suited for the low cost collection of information by mail. Supplementary information is included within the frame that allows the use of efficient stratified sample designs. A major disadvantage of this method is the constant change in the list frame which can never be perfect. In Hawaii, cattle, hog, macadamia nut and coffee surveys are examples of stratified list sample designs.

**AREA FRAME SAMPLING** can be used alone or in conjunction with the list frame. The frame consists of an aggregation of identifiable units of land or segments which may be sampled. The frame is complete and does not suffer the type of deterioration over time as does a list frame.

**MULTIPLE-FRAME SAMPLING** is the use of two frames. It takes advantage of the best attributes of the area frame and the list frame, produces unbiased estimates and allows measurement of the sampling error.

**OBJECTIVE YIELD SURVEYS** provide information from direct counts, measurements and weights of the crop made from small plots in a probability selection of sample fields.

**ADMINISTRATIVE DATA** is used in addition to producer surveys to establish final production and marketings. These include processor receipts, slaughter, vacuum cooler volume, and inspections. Unloads at Honolulu and wholesale prices as reported by the Market Analysis and News Branch, are an important check data source.



## **REPORTS ISSUED**

Title and Description	Release date
CROPS	
<b>AVOCADOS</b> : Annual summary of acreage, yield, production, farm price, and value	May
- Monthly report on sales, farm price, and production forecast	Last week of the month May
- Preliminary season estimates of acreage, yield, production, farm price, and value Final season estimates of acreage, yield, production, farm price, and value  FRUITS:	December August
- Annual summary of fresh and processed fruit production, acreage, farm price, and value - Annual summary of tropical specialty fruits - acreage, production, and value  GINGER ROOT: Annual summary of acreage, yield, production, farm price, and value. Planting intentions for next season	September August
August	
GUAVAS: Annual summary of acreage, yield, production, farm price, and value	June August
- Preliminary season estimates of acreage, yield, production, farm price, and value - Final season estimates of acreage, yield, production, farm price, and value - PAPAYAS: Monthly report of acreage, utilization, and farm price	January July Mid-month
PINEAPPLES:       Annual summary of acreage, production, farm price, and value         SEED CROP:       Annual summary of acreage, outshipments of seed, and value	February October
<b>SUGARCANE</b> : Estimates of acreage and production for all major U.S. producing areas	August-November
- Quarterly report of taro milled for poi - Annual summary of acreage, production, and farm prices for Chinese and wetland taro	Jan., Apr., Jul., Oct.
varieties  VEGETABLES:	April
<ul> <li>Monthly report of acreage, sales, and farm price for selected major vegetables and melons.</li> <li>Includes forecast of production and harvested acreage</li> <li>Annual summary of acreage, production, and value for all vegetables and melons</li> </ul>	Second week of month July
FLORICULTURE AND NURSERY PRODUCTS	
FLORICULTURE AND NURSERY PRODUCTS: Annual summary of area, production, and value  POINSETTIAS: Fall report of plant inventory and past year sales	June October
LIVESTOCK	
LIVESTOCK REVIEW: Monthly hog and cattle slaughter, cattle outshipment, pasture conditions, number of milk cows and milk production, number of layers and egg production, and farm prices  CATTLE: Annual summary of inventory and calf crop as of January 1	Last week of month February January February
OTHER PUBLICATIONS	
AQUACULTURE: Annual summary of operations, production, and value	September
stations	First working day of week Feb., May, Aug., Nov. October

To order: Any of the above reports may be obtained by contacting the Hawaii Agricultural Statistics Service, 1428 South King Street, Honolulu, HI 96814-2512, (808) 973-9588. Most of our publications are available on the Internet at: http://www.nass.usda.gov/hi/rlsetoc.htm.

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#### Where can I get more statistics or economic analysis?

<u>National Agricultural Statistics Service (NASS)</u> publications include weekly, monthly, quarterly and annual estimates of production, stocks, inventories, dispositions, utilization and prices of agricultural commodities and other items. The Census of Agriculture is published every five years covering all commodities by state, county and zip code. Other census reports include the Agricultural Atlas, Agricultural Economics & Land Ownership, Aquaculture, Census History, Congressional Tabulations, Farm & Ranch Irrigation, Horticulture Specialties and Outlying Areas.

<u>Economic Research Service (ERS)</u> Situation and Outlook Reports and periodicals analyze the current situation and forecast market conditions. ERS monographs offer economic analysis in the area of trade, production, rural development, farm inputs and other topics.

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#### **AQUACULTURE**

Hawaii Aquaculture Association Aquaculture Development Program 1177 Alakea St. Rm 400 Honolulu, HI 96813 (808) 587-0030

#### **AVOCADO**

Hawaii Avocado Association P.O. Box 925 Kealakekua, HI 96750 (808) 322-7873

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Association for Hawaiian Awa P.O. Box 636 Pepeekeo, HI 96783 (808) 969-7079

Hawaii Awa Council P.O. Box 262 Kurtistown, HI 96760 (808) 968-6237

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#### **BEEKEEPERS**

Big Island Beekeepers Association P.O. Box 430 Papaikou, HI 96781 (808) 964-5401

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Big Island Association of Nurserymen P.O. Box 4365 Hilo, HI 96720

Big Island Dendrobium Growers Association of Hawaii (BIDGA) P.O. Box 4153 Hilo, HI 96720 (808) 966-7610

Dendrobium Orchid Growers Association of Hawaii (DOGAH) P.O. Box 1324 Wahiawa, HI 96786 622-4185

Hawaii Association of Nurserymen P.O. Box 293 Honolulu, HI 96809 (808) 951-0055

Hawaii Export Nursery Association P.O. Box 11120 Hilo, HI 96721 (808) 969-2088

Hawaii Florists and Shippers Association P.O. Box 582 Hilo, HI 96721 (808) 959-3535

Hawaii Orchid Growers Association P.O. Box 2152 Keaau, HI 96749 966-4550

Hawaii Tropical Flowers Council P.O. Box 4306 Hilo, HI 96720 (808) 961-5555

Hawaii Tropical Flowers Foliage Association P.O. Box 817 Kaneohe, HI 96744 (808) 735-4601

#### **INDUSTRY ASSOCIATIONS - Continued**

#### **FLOWERS & NURSERY - Continued**

Hawaii Turfgrass Association 1833 Kalakaua Ave. Suite 211 Honolulu, HI 96815 (808) 955-3504

Landscape Industry Council of Hawaii P.O. Box 661 Kaneohe, HI 96744 (808) 239-5455

Maui Flower Growers Association P.O. Box 684 Hana, HI 96713 (808) 878-6351

Protea Growers Association of Hawaii P.O. Box 425 Kula, HI 96790 (808) 283-3951

West Hawaii Orchid Growers Association (WHOGA) P.O. Box 1540 Kailua-Kona, HI 96745 (808) 329-8455

#### **FOREST**

Hawaii Forest Industry Association P.O. Box 10216 Hilo, HI 96721 (808) 933-9411

#### **MACADAMIA NUT**

Hawaii Macadamia Nut Association P.O. Box 2092 Keaau, HI 96749 (808) 965-5444

#### MILK

Fresh Milk Industry of Hawaii P.O. Box 190 Hawi, HI 96719 (808) 889-5978

#### ONION

Maui Onion Growers Association P.O. Box 148 Kula, HI 96790 (808) 878-2917

#### **ORGANIC PRODUCE**

Hawaii Organic Farmers Association P.O. Box 6863 Hilo, HI 96720 (808) 969-7789

Hawaii Papaya Industry Association P.O. Box 537 Pahoa, HI 96778 (808) 965-8699

#### **PINEAPPLE**

Pineapple Growers Association of Hawaii 1116 Whitmore Ave. Wahiawa, HI 96786 (808) 877-3855 (Maui)

#### **PORK**

Hawaii Pork Industry Association C/O Hawaii Food Products 94-403 Ukee St. Waipahu, Hi 96797 (808) 676-9100

#### **POULTRY**

Hawaii Fryer's Council C/O Pacific Poultry Co. 1818 Kanakanui St. Honolulu, HI 96819 (808) 841-2828

#### **TARO**

Kauai Taro Growers Association P.O. Box 427 Hanalei, HI 96714 (808) 826-6202

#### **TROPICAL FRUITS**

Hawaii Tropical Fruit Growers P.O. Box 1582 Hilo, HI 96721-1582 (808) 934-9610

#### **VEGETABLE**

Maui Farmer's Cooperative Exchange 970 B Lower Main St. Wailuku, HI 96793 (808) 242-9767

# COOPERATIVE EXTENSION SERVICE COUNTY OFFICES AND USDA FARM SERVICE AGENCIES

Cooperative Extension Service Hawaii County Office 875 Komohana St. Hilo, HI 96720 (808) 959-9155

Cooperative Extension Service Kamuela Office 67-5189 Kamamalu St. Kamuela, HI 96743 (808) 887-6183

Cooperative Extension Service Kona Office 79-7381 Mamalahoa Hwy Kealakekua, HI 96750-7911 (808) 322-4892

Cooperative Extension Service Maui Office 310 Kaahumanu Ave. Bldg. 214 Kahului, HI 96732 (808) 244-3242

Cooperative Extension Service Molokai Office PO Box 394 Hoolehua, HI 96729 (808) 567-6929

Cooperative Extension Service Kauai County Office 3060 Eiwa St. Rm 210 Lihue, HI 96766 (808) 274-3471

Cooperative Extension Service Wahiawa Office 910 California Ave. Wahiawa, HI 96786 (808) 622-4185 Cooperative Extension Service Kaneohe Office 45-260 Waikalua Rd. Kaneohe, HI 96744 (808) 247-0421

Cooperative Extension Service Pearl City Office 962 2nd St. Pearl City, HI 96782 (808) 453-6050

Cooperative Extension Service Oahu County Office 1420 Lower Campus Rd. Honolulu, HI 96822 (808) 956-7138

USDA Hawaii County FSA Office Room 219 & 221 Federal Bldg. 154 Waianuenue Ave. Hilo, HI 96720 (808) 933-8381

USDA Maui County FSA Office Millyard Plaza 210 Imi Kala St. Suite 207 Wailuku, HI 96793 (808) 244-3100

USDA Kauai County FSA Office Watumull Bldg. 4334 Rice St. Rm 103 Lihue, HI 96766 (808) 245-9014

USDA Honolulu County FSA Office 99-193 Aiea Heights Drive Suite 114 Aiea, HI 96701 (808) 483-8609

### PHOTOGRAPHY ACKNOWLEDGEMENTS

Cover photo: Leafy crops growing in Waimea (Kamuela), Island of Hawaii, on the Best

Farms. Photo courtesy of Scott Bauer, U.S.D.A., Beltsville, MD.

Fruits: Papaya orchard in the Kapoho area, Island of Hawaii, courtesy of HASS staff,

page 37.

Vegetable, Melon,

and Taro: Local taro farm, courtesy of HASS staff, page 48.

Special Statistics: Watercress growing on Sumida Farm, Inc., Aiea, Oahu, courtesy of HASS

staff, page 87.